ZHITNITSKIY, S.I.

Investigating the effect of some factors on the shear of borders of cast-iron parts caused by broaching. Stan. i instr. 34 no.10:29 O '63. (MIRA 16:11)

ZHITNITSKIY, S.I.

Wear of hard alloy broaches in broaching cast iron. Stan. i instr. 35 no.1:32-34 Ja '64. (MIRA 17:3)

ZHITNITSKIY, S.I.

Sectional hard-alloy broach. Stan.i instr. 33 no.7:28-29 Jl '62.
(MIRA 15:7)

(Broaching machines)

S/123/62/000/023/007/008
A004/A101

AUTHOR: Zhitnitskiy, S. I.

TITLE: Comparing the resistance to wear of various tool materials in broaching of cast-iron parts

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 23, 1962, 86, abstract 23B499 ("Avtomob. prom-st'", 1962, no. 6, 40)

TEXT: Tests were carried out with the following six sintered carbide grades on specimens of grade C 421-40 (S421-40) cast iron of HB 210 - 217 hardness: BK4 (VK4), BK 6 M (VK6M), BK 8 (VK8), TT 7 K12 (TT7K12), T 5 K 10 (T5K10) and T 15 K6 (T15K6), and also with P 18 (R18) high-speed steel. The tests were conducted at γ - 1.3, 5, 6, 8, 10, 15, 20 and 30 m/min; S = 0.2 m; B = 4.5 mm. Of all these tool materials, VK6M showed the maximum service life at all cutting speeds and is recommended to be used for the broaching of cast-iron parts. There are 2 figures and 1 table.

[Abstracter's note: Complete translation]

Card 1/1

ZHITNITSKIY, S.I.; ANDREYCHIKOV, O.S.

Tool for thread rolling in holes. Stan. i instr. 36 no.10:28-30 O '65. (MIRA 18:11)

ZHITNITSKIY, Z.; KRYUKOVA, L.

New books. Sots. trud 8 no.9:158-159 S '63. (MIRA 16:10)

1. Nachal'nik otdela truda i zarabotnoy platy fabriki klavishnykh instrumentov "Zarya" (for Kryukova).

ZHITNITSKIY, S.P., dots., kand.tekhn.nauk

Thermal-stress analysis of friction-disk brakes. Izv.vys. ucheb.zav.;mashinostr. no.2:29-36 '58. (MIRA 11:12)

1. Zaporozhskiy mashinostroitel'nyy institut.
(Brakes) (Thermal stresses)

ACCESSION NR: AP4019093 Z/0038/64/000/003/0085/0085

AUTHOR: Zitnansky, Bohumil (Zhitnyanski, B.)

TITLE: A study of the transition of chromium and sulfur into welding filler metal

SOURCE: Jaderna energie, no. 3, 1964, 85

TOPIC TAGS: isotope exchange, welding rod, welding electrode, welding metal filler, chromium, sulfur, welding, filler metal, Cr sup 51, S sup 35

ABSTRACT: The transition of chromium and sulfur into welding filler metal was studied with the help of Cr^{51} and S^{35}. Activated chromium and sulfur were in the electrode coating. Activation was effected by a simultaneous immersion of the electrodes in a solution of Cr^{51} and S^{35} with isotope exchange. Radiometric evaluation was done by a double measurement. The activity of chromium was established by a gamma scintillation counter, while the S^{35} radiation was measured with a beta scintillation counter without window. Certain relations were established for the welding electrode. A large amount of chromium evaporates out of the electric arc under given welding conditions, whereupon the relatively

Card 1/2

ACCESSION NR: AP4019093

marked transition of chromium for the given chromium-nickel electrode takes place in that case when the chromium is found in the electrode coating. In a contrary case, the chromium losses are more substantial. Sulfur transforms from coating into metal almost completely. [Abstractor's note: this is a complete translation of the original article.] Orig. art. has no graphics.

ASSOCIATION: Vuzkumny ustav svaracsky, Bratislava (Research institute for welding)

SUBMITTED: 00 DATE ACQ: 23Mar64 ENCL: 00

SUB CODE: IE, ML NO REF SOV: 000 OTHER: 000

Card 2/2

ZHITNITSKIY, S.P.

Designing multiple-disk (plate) brakes for the TB electric pulleys.
Trudy KhPI. Ser.mash. 19 no.5:183-190 '59. (MIRA 14:9)
(Pulleys--Brakes)

ZHITNYUK, R.I. (Leningrad, Pesochnaya ul., d.24, kv.8)

Immediate and late results of the application of gall bladder fistula in acute cholecystitis. Vest.khir. no.4:75-78 '61. (MIRA 14:4)

1. Iz fakul'tetskoy khirurgicheskoy kliniki No.2 (zaph. - prof. M.S. Lisitsyn) Voyenno-meditsinskoy ordena Lenina akademii im. S.M. Kirova.

(GALL BLADDER—SURGERY)

ZHITNYUK, R.I.; SHEMYAKIN, I.S.

Hernia of the xiphoid process. Vest.khir. no.1:141 '62.
(MIRA 15:1)

1. Iz 2-y fakul'tetskoy khirurgicheskoy kliniki (nach. - prof. M.S. Lisitsyn [deceased]) Voyenno-meditsinskoy ordena Lenina akademii im. S.M. Kirova.
(XIPHOID PROCESS—HERNIA)

ZHITNYUK, R.I. (Leningrad)

Neurinoma of the pelvis minor simulating an inoperable tumor of the rectum. Vop. neirokhir. 26 no.6:56 N-D'62 (MIRA 17:3)

ZHITNYUK, R.I. (Leningrad,18,ul.Pesochnaya,d.24,kv.8)

Study of prothrombin in stomach diseases. Klin.khir. no.8:40-42 Jl '62. (MIRA 15:11)

1. Kafedra voyenno-morskoy khirurgii (nachal'nik - prof. A.A. Bocharov) Voyenno-meditsinskoy ordena Lenina akademii imeni S.M.Kirova.

(PROTHROMBIN) (STOMACH--DISEASES)

ZHITNYUK, R.I. (Leningrad, Pesochnaya ul., 24, kv.8)

Barré-Masson disease. Vest. khir. 92 no.1:89-91 Ja '64.
(MIRA 17:11)

1. Iz kafedry neyrokhirurgii (nachal'nik - prof. B.A. Samotokin) Voyenno-meditsinskoy ordena Lenina akademii imeni Kirova, Leningrad.

GREBENYUK, V.I.; ZHITNYUK, R.I.

Diagnosis of closed abdominal lesions in patients with a brain trauma. Voen.-med. zhur. no.6:26-29 '64. (MIRA 18:5)

ZHITNYY, P.; DUDAREV, V.; OGARKOV, V.; KOPELYANSKIY, V.; NOVIKOV, K.

Exchange of experience. Avt.transp. 42 no.3:55-56 Mr '64.
(MIRA 17:4)

BREKHOVSKIKH, S.M., kand.tekhn.nauk; ZHITOMIRSKAYA, E.Z.

Radiation resistande of foam glass. Stek. i ker. 20 no.5:16-17 My '63. (MIRA 16:7)

(Glass, Cellular—Testing)

S/081/62/000/023/071/120
B144/B186

AUTHOR: Zhitomirskaya, E. Z.

TITLE: Preliminary experiments for high-frequency foaming of articles

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 23, 1962, 501, abstract 23K500 (Steklo. Byul. Gos. n.-i. in-ta stekla, no. 1(110), 1961, 70 - 71)

TEXT: The tests were carried out in the ГЛ-61-а (GL-61-a) high-frequency melting-tempering apparatus of the Institut stali (Steel Institute). The heating element was a graphite crucible 180 mm high, with 100 mm internal diameter, and 15 mm wall thickness. The operation was controlled by the amperage of the anodic current. Several foaming conditions were tried: different amperage of the anodic current with 100 mm internal different forms of holding with a definite amperage of the anodic current, holding under cover after the current had been switched off, and also different compositions of the mixture. The preliminary investigation into the production of foam glass in graphite molds with a high-frequency current yielded results showing that uniform foaming is inhibited by a

Card 1/2

S/081/62/000/023/071/120
B144/B186

Preliminary experiments for...

high temperature gradient along the sample cross-section. [Abstracter's note: Complete translation.]

Card 2/2

BAKHVALOV, A.P.; SHRAGO, Z.Kh.; ZHITOMIRSKAYA, L.M.; ISHKOVA, A.K., red.; MAMONTOVA, N.N., tekhn.red.

[Coin mechanisms of vending machines] Monetnye mekhanizmy torgovykh avtomatov. Moskva, Gos.izd-vo torg.lit-ry, 1960. 79 p. (MIRA 13:12)

(Vending machines)

ZHITOMIRSKAYA, O M

Klimaticheskoye Opisaniye Respublik Sredney Azii (By) Ye. N. Bulashova, O.M. Zhitomirskaya (1) O.A. Semenova. Leningrad, Gimiz, 1960.
240 (1) p. Diagrs., Tables
At Head of Title: Glavnoye Upravleniye Gidrometeorologicheskoy Sluzhby Pri Sovete Ministrov SSSR, and Sredneaziatskiy Nauchno-Issledovatel'skiy Gidrometeorologicheskiy Institut.
Bibliography: P. 240-(241)

BALASHOVA, Yelena Nikolayevna; ZHITOMIRSKAYA, Ol'ga Moiseyevna; SEMENOVA, Ol'ga Aleksandrovna; ZHDANOVA, L.P., red.. V redaktirovanii prinimal uchastiye KOZIK, S.M., VLADIMIROV, O.G., tekhn.red.

[Climatic description of the republics of Central Asia] Klimaticheskoe opisanie respublik Srednei Azii. Leningrad, Gidrometeor.izd-vo, 1960. 240 p. (MIRA 13:8)
(Soviet Central Asia--Climate)

ZHITOMIRSKIY, Aleksandr

Posed pictures are easily detected. Sov. foto 20 no. 12:24 D '60. (MIRA 14:1)

1. Glavnyy khudozhnik zhurnala "Sovetskiy Soyuz." (Photography)

GOHELIK, I.; ZHITOMIRSKIY, E.

Quality of merchandise inspections. Sov.torg. no.4:37-40 Ap '59.
(MIRA 12:6)

(Commercial products--Testing)

ZHITOMIRSKIY, Emanuil Grigor'Yevich

Finansirovaniye I Dreditovaniye Predpriyatiy Lesnoy Promyshlennosti Finance and credit in Timber Industrial Enterprises, Moskva, Goslesbumizdat, 1957.

67 p. tables.

At head of title: Moscow, Nauchno-Technicheskoye Obshchestvo Lesnoy Promyshlennosti.

Bibliographical Footnotes.

KIRILLOV, I.A., prof.; BORODIN, S.V.; VINOKUR, R.D.; VOSKRESENSKIY, A.A.; GIROVSKIY, V.F.; ZHITOMIRSKIY, E.G.; SAFRAY, G.Ye.; SYCHEV, N.G.; NIKITIN, N.D.; FILATOV, N.L.; FIALKOVA, V., red.; LEBEDEV, A., tekhn.red.

[Finances of branches of the national economy] Finansy otraslei narodnogo khoziaistva. Avtorskii kollektiv pod rukovodstvom I.A.Kirillova. Moskva, Gosfinizdat, 1958. 302 p. (MIRA 12:2)
(Finance)

SMIRNOV, Petr Vasil'yevich; ZHITOMIRSKIY, Emmanuil Grigor'yevich; KORENEV, A., otv.red.; POGODIN, Yu., red.izd-va; TELEGINA, T., tekhn.red.

[Finances of supply and sale organizations] Finansy snabzhenchesko-sbytovykh organizatsii. Moskva, Gosfinizdat, 1959. 130 p. (MIRA 13:3)

(Finance)

ZHITOMIRSKIY, I. B.

Cand Tech Sci - (diss) "Study of new designs of mine surveyor gyro-compasses." Leningrad, 1961. 21 pp with illustrations; (Ministry of Higher and Secondary Specialist Education RSFSR, Leningrad Orders of Lenin and Labor Red Banner Mining Inst imeni G. V. Plekhanov); 200 copies; price not given; (KL, 5-61 sup, 189)

ZHITOMIRSKIY, I.B.

Effect of the moment of external forces on the stability of readings of a gyrocompass having the sensing element centered on the pin. Izv.vys.ucheb.zav.; prib. 4 no.3:59-67 '61. (MIRA 14:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy marksheyderskiy institut. Rekomendovana Orgkomitetom Vtoroy mezhvuzovskoy konferentsii po problemam sovremennoy giroskopicheskoy tekhniki.
(Gyrocompass)

VASIL'YEV, A.G. (Khar'kov); ZHITOMIRSKIY, I.S. (Khar'kov); KLEMPNER, E.S. (Khar'kov)

Reliability criteria of automatic relay devices with radioactive emitters. Avtom.i telem. 21 no.2:245-253 F '60. (MIRA 13:5)

(Switching theory)

S/137/61/000/012/022/149
A006/A101

AUTHORS: Zhitorminskiy, I. S., Likht, M. K., Dreyzin-Dudchenko, S. D.

TITLE: A method of calculating the temperature field and the crystallization front in the zone of secondary cooling in square section ingots during continuous teeming of steel

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 12, 1961, 60, abstract 12V367 ("Sb. nauchn. tr. Gos. n.-i. i proyektn. in-t metallurg. prom-sti "Giprostal", 1960, no. 2, 145 - 151)

TEXT: A method is described to calculate the temperature fields and crystallization front in secondary cooling zones of square-section ingots during continuous teeming of steel. It is noted that the accuracy of calculation by this method is sufficient for practical purposes and that results of calculating the temperature field can be applied to investigate the effect of cooling conditions on mechanical stresses in the crust and on the quality of the ingot. By varying the values of dimensionless criteria of similarity, a sufficiently complete table of data can be obtained for the depth of the liquid phase for parameters of different values, and corresponding recommendations can be given as to the height of

S/137/61/000/012/022/149
A006/A101

A method of calculating the...

the secondary cooling zone.

Vi Gasilina

[Abstracter's note: Complete translation]

Card 2/2

ZHITOMIRSKIY, M.O., inzh.

New method of calculating some flight characteristics of a plane with a turbojet engine for altitudes N 11,000 meters. Vest. Vozd. Fl. 41 no.8:85-86 Ag '58. (MIRA 11:9)
(Airplanes--Turbojet engines)

ZHITOMIRSKIY, M.R.

Production lines in thread manufacture. Tekst.prom. 20 no.7: 63-64 Jl '60. (MIRA 13:7)
(Thread)

DELONE, B.; ZHITOMIRSKIY, O. [deceased]; IVASHEV-MUSATOV, O.S., red.; GOLUBKOVA, L.A., tekhn.red.

[Problems in geometry] Zadachnik po geometrii. Izd.7., stereotipnoe. Moskva, Gos.izd-vo fiziko-matem.lit-ry, 1959. 294 p. (MIRA 12:11)

(Geometry--Problems, exercises, etc.)

RESTRICTED

ZHITNIKOV, S. S.

KOBEKO, P. P., KUVSKINSKIY, E. V., VACHAYEV, I. P., GORODETSKAYA, F. A., and ZHITNIKOV, S. S.
J. Phys. Chem. (USSR), 9, 376-86 (1937)
A study of the amorphous state. IX. Electric conductivity and viscosity of alcohols.

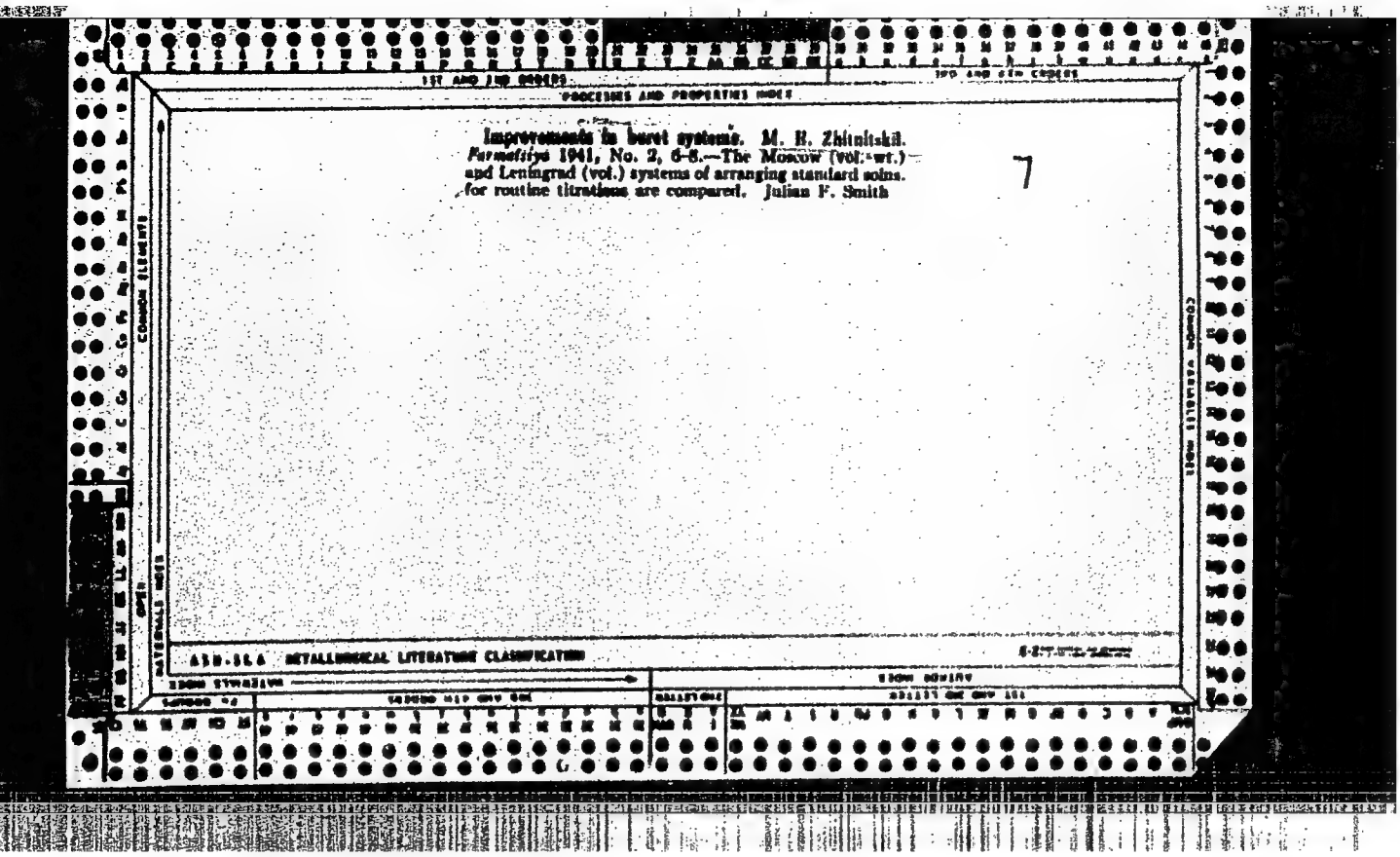
RESTRICTED

ZHITNIKOV, V. (Tambovskaya oblast').

The oldest motorcycle driver. Za rul. 14 no.8:6 '56. (MLRA 10:9)
(Gurelev, Konstantin Nikolaevich)

ZHITNIKOV, Ye.I., inzhener.

Methods of transmitting video signals and sound on one carrier frequency. Tekh.televid.no.5:43-60 '55. (MLRA 10:2)
(Television--Transmitters and transmission)



Improvements in buret systems. M. B. Zhitnitskii. *Zavodskaya* 1941, No. 2, 6–8.—The Moscow (vol.-wt.) and Leningrad (vol.) systems of arranging standard soins. for routine titrations are compared. Julian F. Smith

7

ZHITNYUK, I., leytenant,; YAKUSHEV, A., mayor

Battle formations of tank units; reactions to an article published in no. 2. Voen. vest. 38 no. 8:34-35 Ag '58. (MIRA 11:7)
(Tank warfare)

1. ZHITNYUK, I. D.

2. USSR (600)

4. Burns and Scalds

7. Loss of plasma in burns and efforts to control it. Novosti med. no. 24, 1951.

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

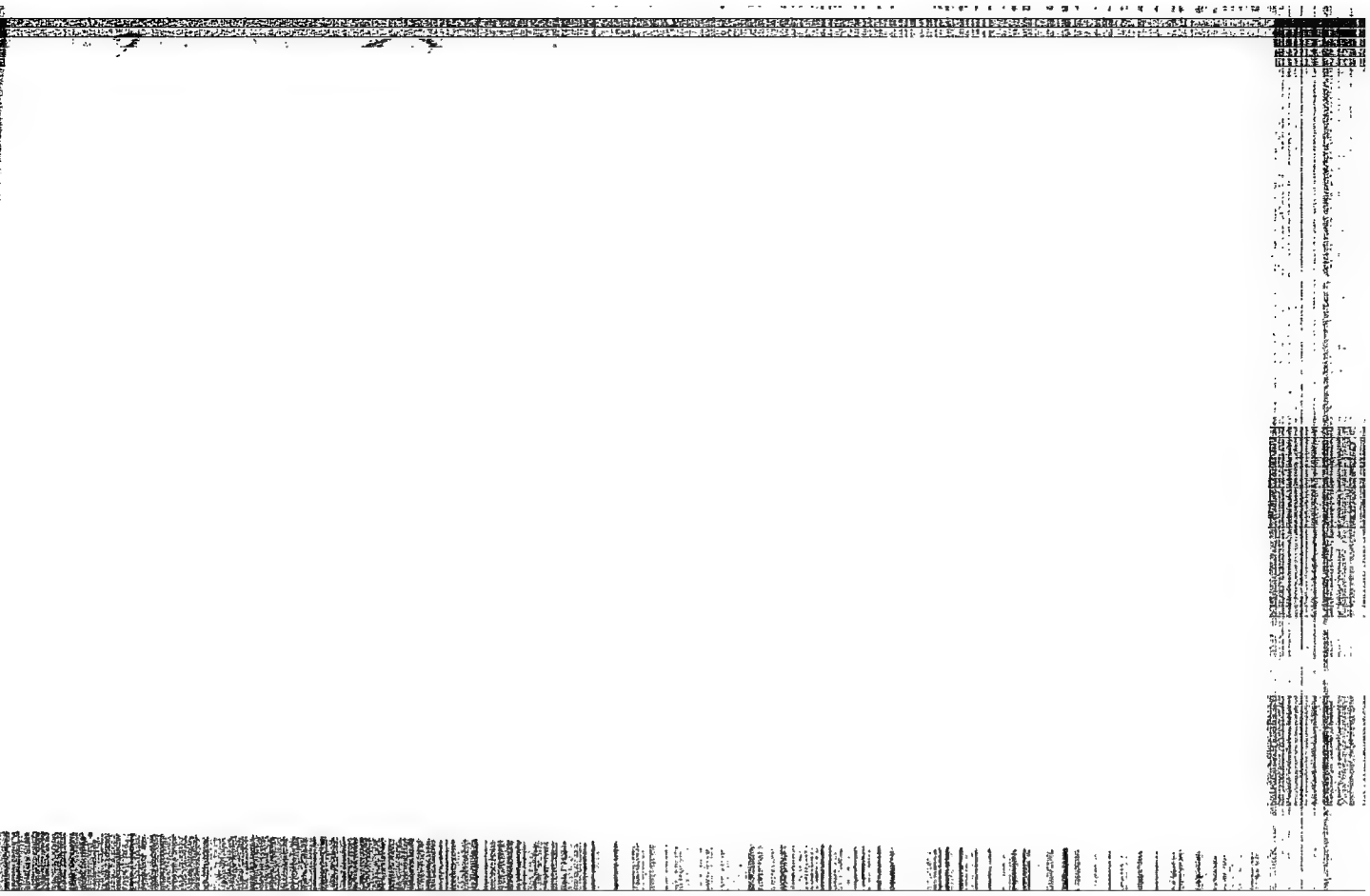
1. ZHITNYUK, I. D.

2. USSR (600)

4. Burns and Scalds

7. Determination of extent of burned surface in laboratory animals. Novosti med. no. 24, 1951.

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.



APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820015-3"

ZHITNYUK, N.I.

Combined therapy of extensive burns using fibrin film. Vest.khir. 78 no.4:94-95 Ap '57. (MLRA 10:9)

1. Iz K-skogo gospitalya (nach. - M.A.Mesterov)
(BURNS, therapy,
fibrin film in complex ther. (Rus))
(HEMOSTATICS, therapeutic use,
fibrin film in vomplex ther. of burns (Rus))

91. Combined-Therapy Using Antibiotics, Blood Transfusion, and Fibrin Films Decreases Dangers of Extensive Burns

"Combined Therapy of Extensive Burns by the Application of Fibrin Films," by R. I. Zhitnyuk, "N" Hospital (chief, M. A. Nesterov), Vestnik Khirurgii imeni I. I. Grekov, Vol 78, No 4, Apr 57, pp 94-95

The author gives the medical history of one patient suffering from burns on 72% of his body surface as a result of a compressed gas explosion in a closed space.

On arrival at the surgical department, the patient's condition was serious: blood pressure 85/44 mm Hg, heart beat weak, etc. The condition of the patient was immediately improved by morphine administration, blood transfusion, etc.

After getting the patient out of shock, the burnt surface of the patient's body was treated under ether anesthesia by gauze tampons moistened with furacilin (5-nitro-2-furfurylidine-semicarbazone). On the burnt surface perforated fibrin films were laid and these were later covered by gauze also moistened with furacilin. Every 2 days these gauze coverings were moistened with furacilin solution without removing them from the burnt surface. Infusion of 5% glucose in physiological solution, penicillin (30 million units), streptomycin (15 g) and food rich in proteins and vitamins was prescribed.

After 15 days the fibrin films were removed, and portions of dry skin with good epithelization were seen. Necrotic tissue sloughed off in 32 days, and the patient was discharged after 2 1/2 months.

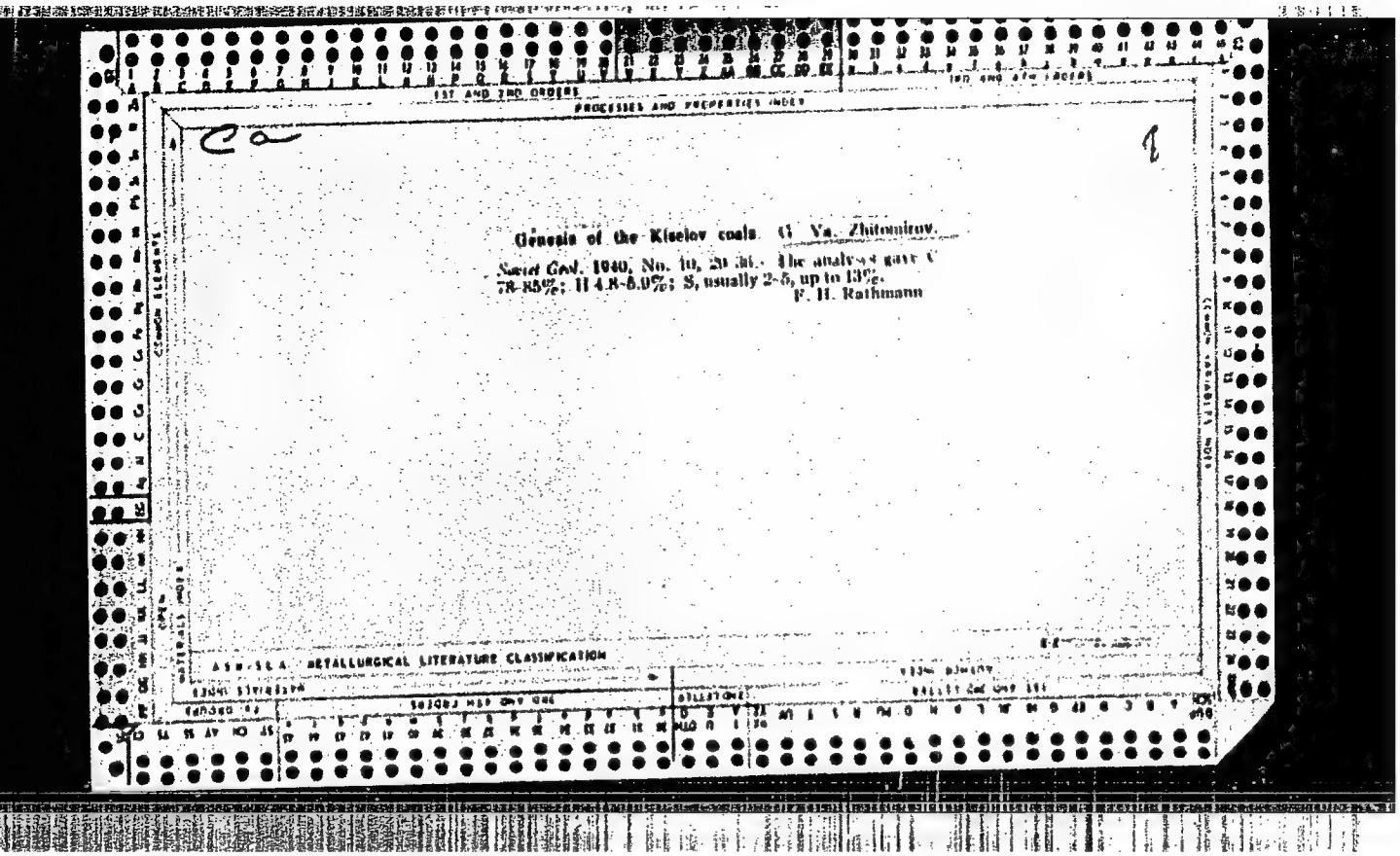
The author concludes that this case history demonstrates that a timely application of combined therapy using large quantities of antibiotics, blood transfusion, and fibrin films brings about a significant decrease in the possibility of a fatal outcome in cases of extensive burns. (U)

ZHITNYUK, R.I. (Leningrad, pr. K. Marksa, d.6, kv.30)

Cholecystostomy in acute cholecystitis. Vest.khir. 83 no.10:43-47 O '59. (MIRA 13:2)

1. Iz fakul'tetskoy khirurgicheskoy kliniki No.2 (nachal'nik - prof. M.S. Lisitsin) Voyenno-meditsinskoy ordena Lenina akademii im. S.M. Kirova).

(CHOLECYSTITIS surgery)



Genesis of the Kiselov coals. G. Ya. Zhitomirov.
Sovet Geol. 1940, No. 10, 29 pp. The analyses gave C 78-85%; H 4.8-6.0%; S, usually 2-5, up to 13%.
F. H. Rathmann

ZHITOMIROVA, M. N.

N.K.Krupskaia on rukovodstve detskim chteniem (N. K. Krupskaia on the guidance of childrenIs reading.) Moskva, Goskul(tprosvetizdat, 1952. 24 p.

SO: Monthly List of Russian Accessions, Vol 6, No. 3, June 1953

L 10522-63 EWP(q)/EWT(m)/BDS--AFFTC/ASD--Pq-4--dk

ACCESSION NR: AP3000392 S/0072/63/000/005/0016/0017

AUTHOR: Brekhovskikh, S. M.; Zhitomirskaya, E. Z. 59

TITLE: Radiation stability of foamed glass

SOURCE: Steklo i keramika, no. 5, 1963, 16-17

TOPIC TAGS: foamed glass, composition, service temperature, mechanical strength, radiation stability, radiation, foaming agent

ABSTRACT: The radiation resistance of two types of foamed glass has been studied. The first type was prepared from 90 to 95% alkali window glass (71.5% SiO_2, 1 to 1.5% Al_2O_3, 7.5 to 8% CaO, 3 to 3.5% MgO, 15% Na_2O) and 10 to 5% Al_2O_3, TiO_2, or ZrO_2, with the addition of 0.5 to 1% SiC or carbon black, or 4% MnO as foaming agents. The second type was prepared from 70 to 80% nonalkali barium glass (60.5% SiO_2, 14.6% Al_2O_3, 16.2% CaO, 8.7% BaO, + 2% Fe) and 30 to 20% Cr_2O_3 or ZrO_2, with the addition of 0.5 to 1% SiC or carbon black. The approximate service temperature of the glasses is 600 to 800C; the highest compressive strength, 51.7 to 74.4 kg/cm^2, is exhibited by specimens produced with use of SiC. The glasses were irradiated with thermal neutrons for 84 hrs (total flux about 10^{18} neutron·cm^{-2})

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L 10522-63
ACCESSION NR: AP3000392

and subjected to compression tests. The tests showed that the mechanical strength of the specimens remained almost unchanged. It was concluded that foamed glasses from alkali window glass and TiO_2 or ZrO_2 and from nonalkali barium glass with Cr_2O_3 or ZrO_2 are resistant to radiation and can be used as heat-resistant thermal insulation in equipment exposed to gamma-neutron radiation.

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 11Jun63 ENCL: 00

SUB CODE: CH NO REF SOV: 000 OTHER: 000

Card 2/2

ZHITOMIRSKAYA, E.Z., kand.tekhn.nauk

Causes of the increase of water absorption of foam glass.
Stek.i ker. 20 no.2:19-20 F '63. (MIRA 16:2)

1. Institut stekla.

(Glass, Cellular)

ZHITOMIRSKAYA O.A.

AYZENSHTAT, Boris Abramovich; BALASHEVA, Yelena Nikolayevna; ZHITOMIRSKAYA, Ol'ga Naoiseyevna; BABUSHKIN, L.N., prof., red.; ZHDANOVA, L.P., red.; PLAUM, M.Ya., tekhn.red.

[Climatological description of the Golodnaya Steppe] Klimaticheskoe opisanie Golodnoi stepi. Pod red. L.N.Babushkina. Leningrad, Gidrometeor. izd-vo, 1958. 73 p. (MIRA 11:7)
(Golodnaya Steppe--Climate)

BALASHOVA, Yelena Nikolayevna; ZHITOMIRSKAYA, Ol'ga Moiseyevna; SEMENOVA, Ol'ga Aleksandrovna; KOZIK, S.M., red.; ZHDANOVA, L.P., red.; VLADIMIROV, O.G., tekhn.red.

[Climatic characteristics of the republics of Central Asia] Klimaticheskoe opisanie respublik Srednei Azii. Leningrad, Gidrometeor.izd-vo, 1960. 240 p. (MIRA 13:7)
(Soviet Central Asia--Climate)

3(3) PHASE I BOOK EXPLOITATION SOV/1653

Ayzenshtat, Boris Abramovich, Yelena Nikolayevna Balasheva, and Ol'ga Moiseyevna Zhitomirskaya

Klimaticheskoye opisaniye Golodnoy stepi. (Climatic Description of the Golodnaya Steppe) Leningrad, Gidrometeoizdat, 1958. 73 p. 1,000 copies printed.

Sponsoring Agencies: USSR. Glavnoye upravleniye gidrometeorologicheskoy sluzhby, and Tashkent. Nauchno-issledovatel'skaya geofizicheskaya observatoriya

Ed. (Title page): L. N. Babushkin, Professor; Ed. (Inside book): L. P. Zhdanova; Tech. Ed.: M. Ya. Flaum

PURPOSE: This booklet is intended for planning and agricultural organizations connected with development of the virgin lands of the Golodnaya Steppe. It is also of interest to climatologists.

Card 1/3

Climatic Description of the Golodnaya Steppe SOV/1653

COVERAGE: This monograph gives a detailed description of climatic characteristics of the Golodnaya Steppe as related to the physicogeographical conditions. With the aid of numerous charts and figures it describes the general conditions, wind regime, dust storms, radiation, cloud conditions, air and soil temperatures, air moisture and drought conditions. An attempt to regionalize the area on the basis of climatological features is also made. There are three Soviet references.

TABLE OF CONTENTS:

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AVAILABLE: Library of Congress(QC990.R92G6)

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ZHITOMIRSKAYA, O.M.; SABININA, I.G.; SEMENOVA, O.A., otv. red.; LIVSHITS, B.Ye., red.; NIKOLAYEVA, G.S., tekhn. red.

[Climatic description of the Usturt] Klimaticheskoe opisanie Ustiurta. Leningrad, Gidrometeoizdat, 1963. 57 p. (MIRA 16:11)

(Usturt--Climate)

ZHITOMIRSKAYA, O.M.; SABININA, I.G.; SEMENOVA, O.A., otv. red.; LIVSHITS, B.Ye., red.; NIKOLAYEVA, G.S., tekhn. red.

[Climatic description of the Ust-Urt] Klimaticheskoe opisanie Ustiurta. Leningrad, Gidrometeoizdat, 1963. 57 p. (MIRA 16:8)

(Ust-Urt--Climate)

ZHITOMIRSKAYA, O.M.; SEMENOVA, O.A., red.; KAPITANETS, Ye.P., red.

[Climatic description of the Aral Sea region] Klimaticheskoe opisanie raiona Aral'skogo moria. Leningrad, Gidrometeoizdat, 1964. 66 p. (MIRA 18:10)

ZHITOMIRSKAYA, O.M.; LEUKHINA, G.N.

Climatic description of the western Tien Shan. Trudy Sred.-Az. nauch.-issl. gidrometeor. inst. no.24:59-117 '65.

(MIRA 18:10)

BALASHEVA, Yelena Nikolayevna; ZHITOMIRSKAYA, Ol'ga Moiseyevna; KARAUL'SHCHIKOVA, Nina Nikolayevna; SABININA, Irina Georgiyevna; SEMENOVA, O.A., red.; VAYTSMAN, A.I., red.; NIKOLAYEVA, G.S., tekhn. red.

[Climatic description of the Zeravshan Range region] Klimaticheskoe opisanie Zeravshanskogo raiona. [By] E.N.Balasheva i dr. Leningrad, Gidrometeoizdat, 1963. 118 p. (MIRA 16:8)

(Zeravshan Range region—Climate)

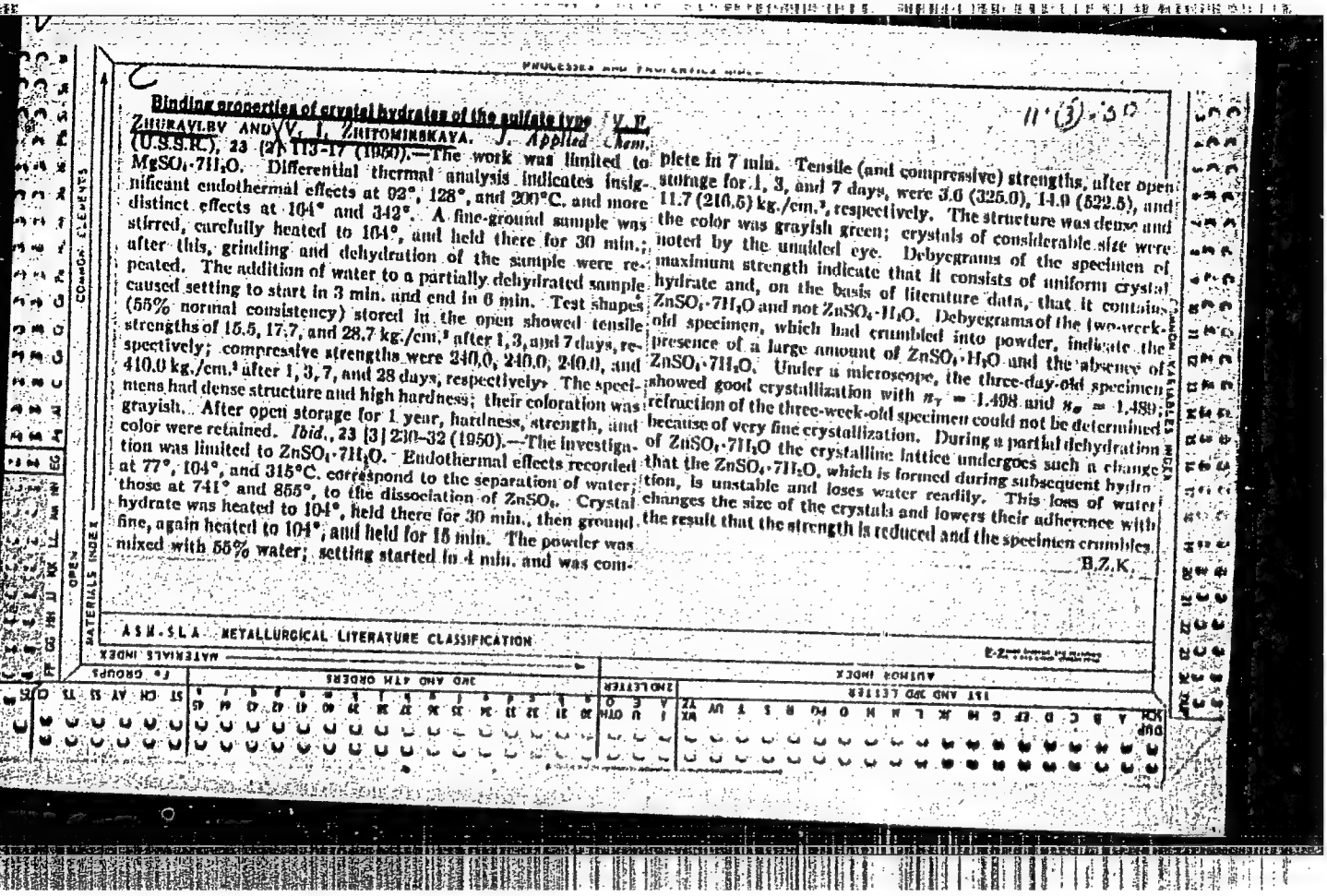
ZHITOMIRSKAYA, TS.

The work of bank branches is made easier. Den. i kred. 21 no.6:26-28 Je '63. (MIRA 16:8)

1. Starshiy ekonomist Pervomayskogo otdeleniya Gosbanka Moskvy.
(Moscow--Credit) (Moscow--Payment)

ZHITOMIRSKIY, V.G.

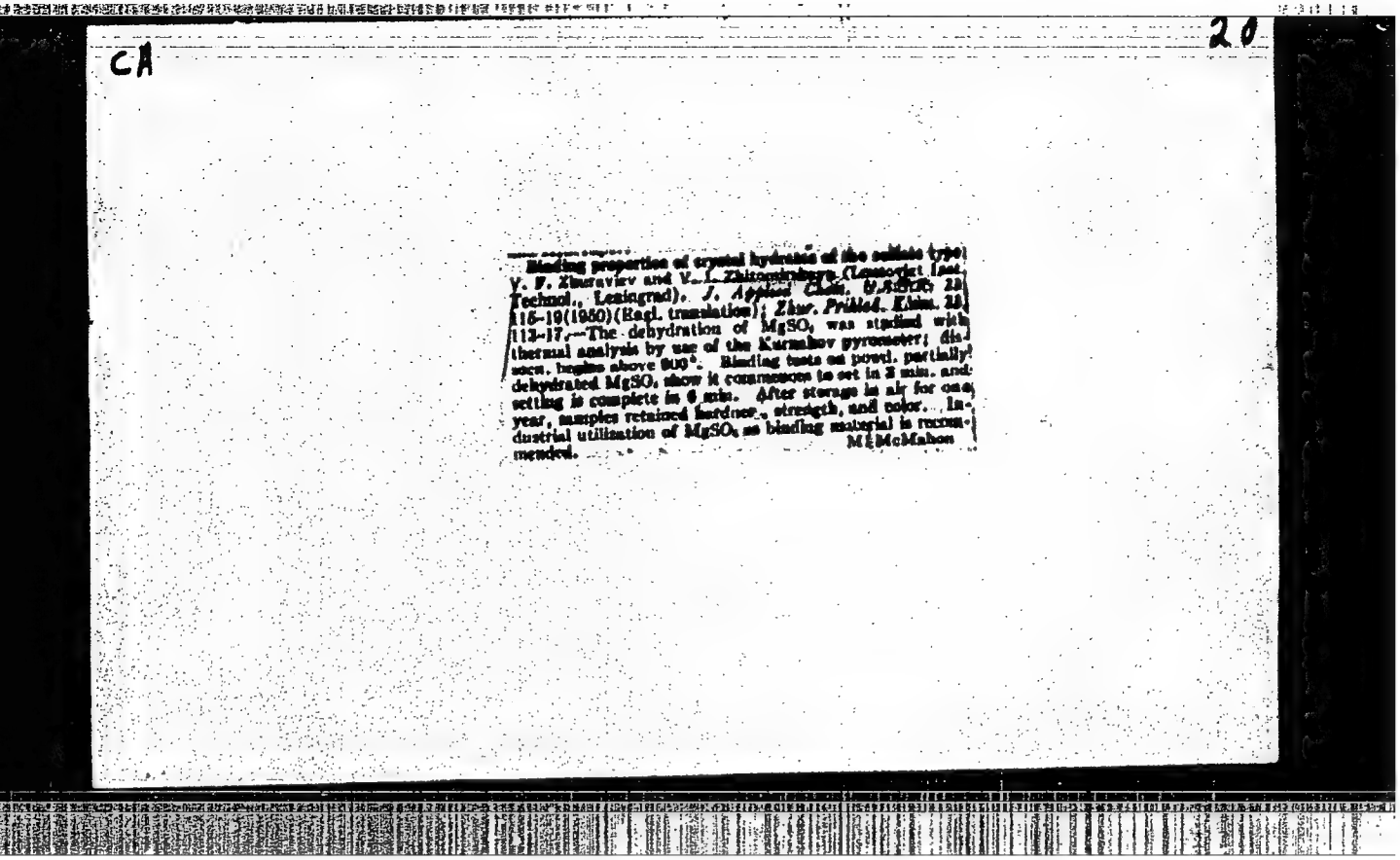
Triangular group of automorphisms of a direct product of groups. Mat. zap. Ural. mat. ob-va UrGU 3 no.3:30-36 '62. (MIRA 18:7)



Binding properties of crystal hydrates of the sulfate type. V. P. ZHURAVLEV AND V. I. ZHITOMINSKAYA. *J. Applied Chem. (U.S.S.R.)*, 23 (2): 113-17 (1950).—The work was limited to $MgSO_4 \cdot 7H_2O$. Differential thermal analysis indicates insignificant endothermal effects at 92°, 128°, and 200°C. and more distinct effects at 104° and 342°. A fine-ground sample was stirred, carefully heated to 104°, and held there for 30 min.; after this, grinding and dehydration of the sample were repeated. The addition of water to a partially dehydrated sample caused setting to start in 3 min. and end in 6 min. Test shapes (55% normal consistency) stored in the open showed tensile strengths of 15.5, 17.7, and 28.7 kg./cm.^{2} after 1, 3, and 7 days, respectively; compressive strengths were 240.0, 240.0, 240.0, and 410.0 kg./cm.^{2} after 1, 3, 7, and 28 days, respectively. The specimens had dense structure and high hardness; their coloration was grayish. After open storage for 1 year, hardness, strength, and color were retained. *Ibid.*, 23 [3] 230–32 (1950).—The investigation was limited to $ZnSO_4 \cdot 7H_2O$. Endothermal effects recorded at 77°, 104°, and 315°C. correspond to the separation of water; those at 741° and 855°, to the dissociation of $ZnSO_4$. Crystal hydrate was heated to 104°, held there for 30 min., then ground fine, again heated to 104°, and held for 15 min. The powder was mixed with 55% water; setting started in 4 min. and was complete in 7 min. Tensile (and compressive) strengths, after open storage for 1, 3, and 7 days, were 3.6 (325.0), 14.0 (522.5), and 11.7 (210.5) kg./cm.^{2}, respectively. The structure was dense and the color was grayish green; crystals of considerable size were noted by the unaided eye. Debyegrams of the specimen of maximum strength indicate that it consists of uniform crystal hydrate and, on the basis of literature data, that it contains $ZnSO_4 \cdot 7H_2O$ and not $ZnSO_4 \cdot H_2O$. Debyegrams of the two-week-old specimen, which had crumbled into powder, indicate the presence of a large amount of $ZnSO_4 \cdot H_2O$ and the absence of $ZnSO_4 \cdot 7H_2O$. Under a microscope, the three-day-old specimen showed good crystallization with $n_\gamma = 1.498$ and $n_\sigma = 1.489$; refraction of the three-week-old specimen could not be determined because of very fine crystallization. During a partial dehydration of $ZnSO_4 \cdot 7H_2O$ the crystalline lattice undergoes such a change that the $ZnSO_4 \cdot 7H_2O$, which is formed during subsequent hydration, is unstable and loses water readily. This loss of water changes the size of the crystals and lowers their adherence with the result that the strength is reduced and the specimen crumbles.

—B.Z.K.

A.S.M.-S.L.A. METALLURGICAL LITERATURE CLASSIFICATION



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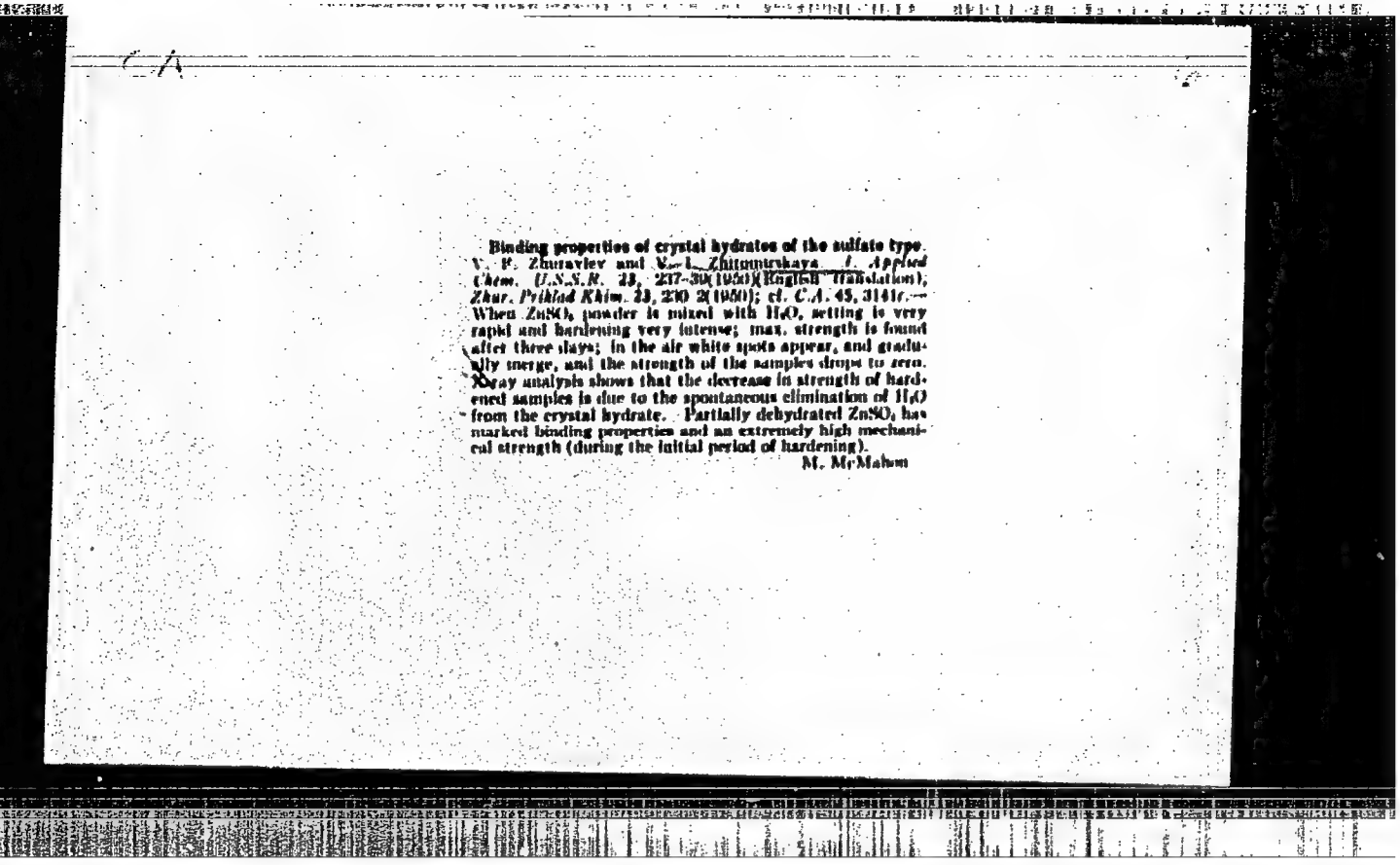
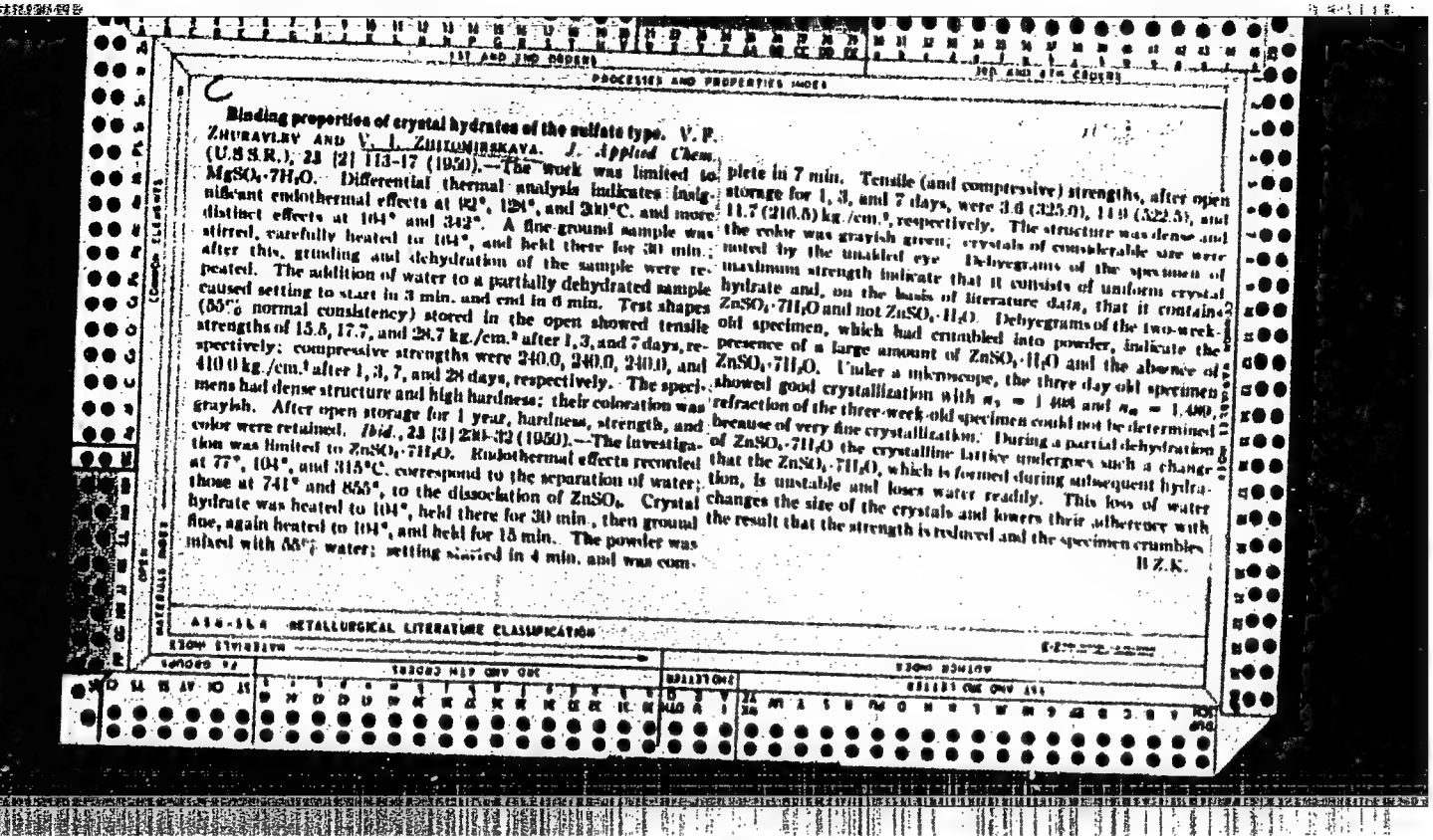
Binding properties of crystal hydrates of the sulfate type. V. F. Khrustaviev and V. I. Zhitomirskaya (Leningrad Inst. Technol., Leningrad). *J. Applied Chem. U.S.S.R.* 23, 115-19(1950)(Engl. translation); *Zhur. Prikład. Khim.* 23, 113-17.—The dehydration of $MgSO_4$ was studied with thermal analysis by use of the Kurnakov pyrometer; dis. soes. begins above 900°. Binding tests on powd. partially dehydrated $MgSO_4$ show it commences to set in 3 min. and setting is complete in 6 min. After storage in air for one year, samples retained hardness, strength, and color. Industrial utilization of $MgSO_4$ as binding material is recommended.

M. E. McMahon



Binding properties of crystal hydrates of the sulfate type. V. F. Zhuravlev and V. I. Zhitomirskaya. *J. Applied Chem. U.S.S.R.* 23, 217-30(1950)(English Translation); *Zhur. Prikhal Khim.* 23, 210-2(1950); cf. *C.A.* 45, 3141*i*.—When $ZnSO_4$ powder is mixed with H_2O, setting is very rapid and hardening very intense; max. strength is found after three days; in the air white spots appear, and gradually merge, and the strength of the samples drops to zero. X-ray analysis shows that the decrease in strength of hardened samples is due to the spontaneous elimination of H_2O from the crystal hydrate. Partially dehydrated $ZnSO_4$ has marked binding properties and an extremely high mechanical strength (during the initial period of hardening).

M. McMahon



PROCESSES AND PROPERTIES INDEX

Binding properties of crystal hydrates of the sulfate type. V. P. ZHURAVLEV AND V. I. ZHITOMIRSKAYA. *J. Applied Chem. (U.S.S.R.)*, 23 [2] 113-17 (1950).—The work was limited to $MgSO_4 \cdot 7H_2O$. Differential thermal analysis indicates insignificant endothermal effects at 92°, 128°, and 200°C. and more distinct effects at 164° and 342°. A fine-ground sample was stirred, carefully heated to 104°, and held there for 30 min.; after this, grinding and dehydration of the sample were repeated. The addition of water to a partially dehydrated sample caused setting to start in 3 min. and end in 6 min. Test shapes (55% normal consistency) stored in the open showed tensile strengths of 15.5, 17.7, and 28.7 kg./cm.^{2} after 1, 3, and 7 days, respectively; compressive strengths were 240.0, 240.0, 240.0, and 410.0 kg./cm.^{2} after 1, 3, 7, and 28 days, respectively. The specimens had dense structure and high hardness; their coloration was grayish. After open storage for 1 year, hardness, strength, and color were retained. *Ibid.*, 23 [3] 203-32 (1950).—The investigation was limited to $ZnSO_4 \cdot 7H_2O$. Endothermal effects recorded at 77°, 104°, and 315°C. correspond to the separation of water; those at 741° and 855°, to the dissociation of $ZnSO_4$. Crystal hydrate was heated to 104°, held there for 30 min., then ground fine, again heated to 104°, and held for 15 min. The powder was mixed with 55% water; setting started in 4 min. and was complete in 7 min. Tensile (and compressive) strengths, after open storage for 1, 3, and 7 days, were 3.6 (325.0), 14.9 (322.5), and 11.7 (210.6) kg./cm.^{2}, respectively. The structure was dense and noted by the unaided eye. Debyegrams of the specimen of maximum strength indicate that it consists of uniform crystal hydrate and, on the basis of literature data, that it contains $ZnSO_4 \cdot 7H_2O$ and not $ZnSO_4 \cdot H_2O$. Debyegrams of the two-week-old specimen, which had crumbled into powder, indicate the presence of a large amount of $ZnSO_4 \cdot H_2O$ and the absence of $ZnSO_4 \cdot 7H_2O$. Under a microscope, the three day old specimen showed good crystallization with $n_g = 1.488$ and $n_m = 1.480$; refraction of the three-week-old specimen could not be determined because of very fine crystallization. During a partial dehydration of $ZnSO_4 \cdot 7H_2O$ the crystalline lattice undergoes such a change that the $ZnSO_4 \cdot 7H_2O$, which is formed during subsequent hydration, is unstable and loses water readily. This loss of water changes the size of the crystals and lowers their adherence with the result that the strength is reduced and the specimen crumbles.

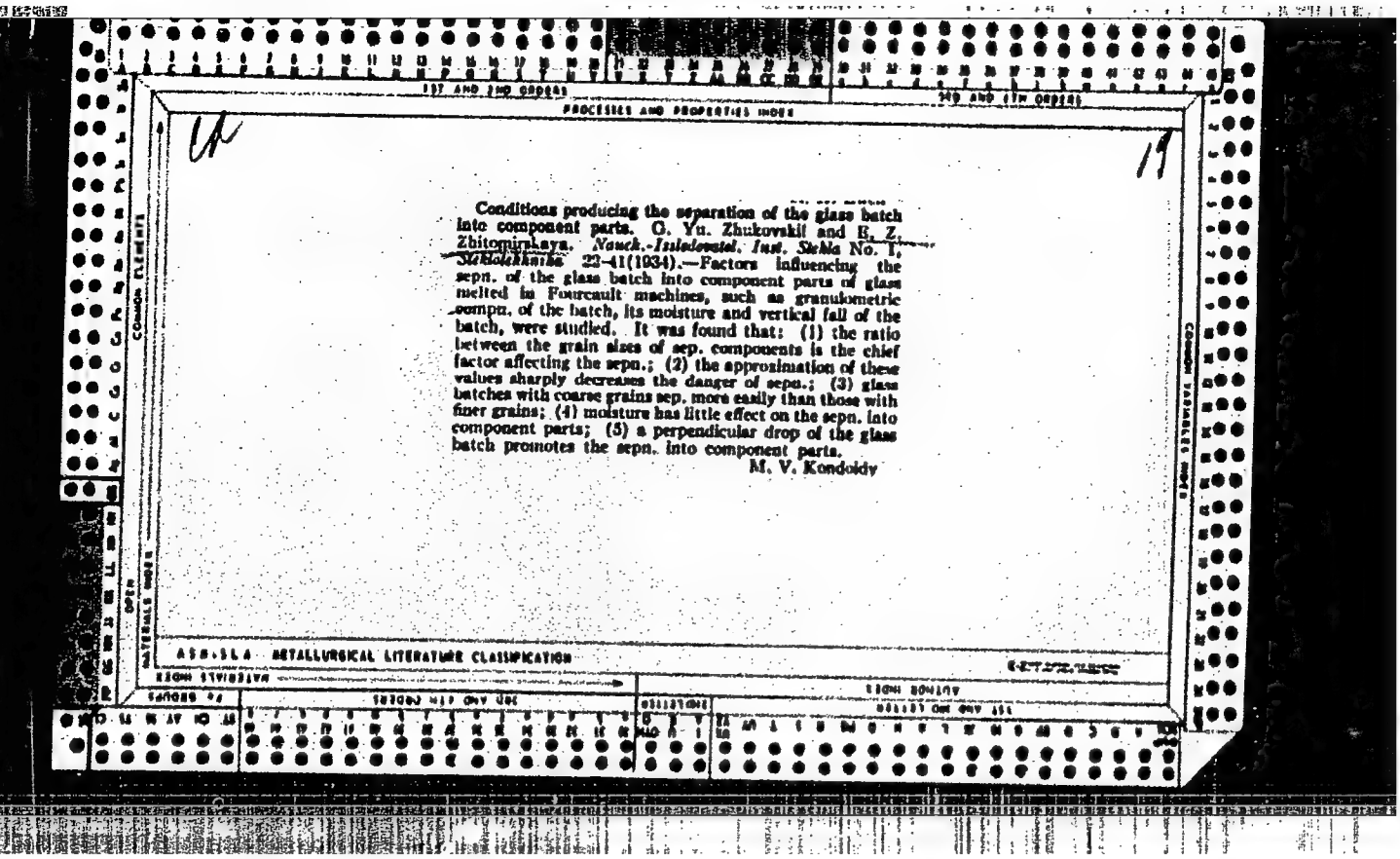
H.Z.K.

A56-55.4 METALLURGICAL LITERATURE CLASSIFICATION

Brief ab.

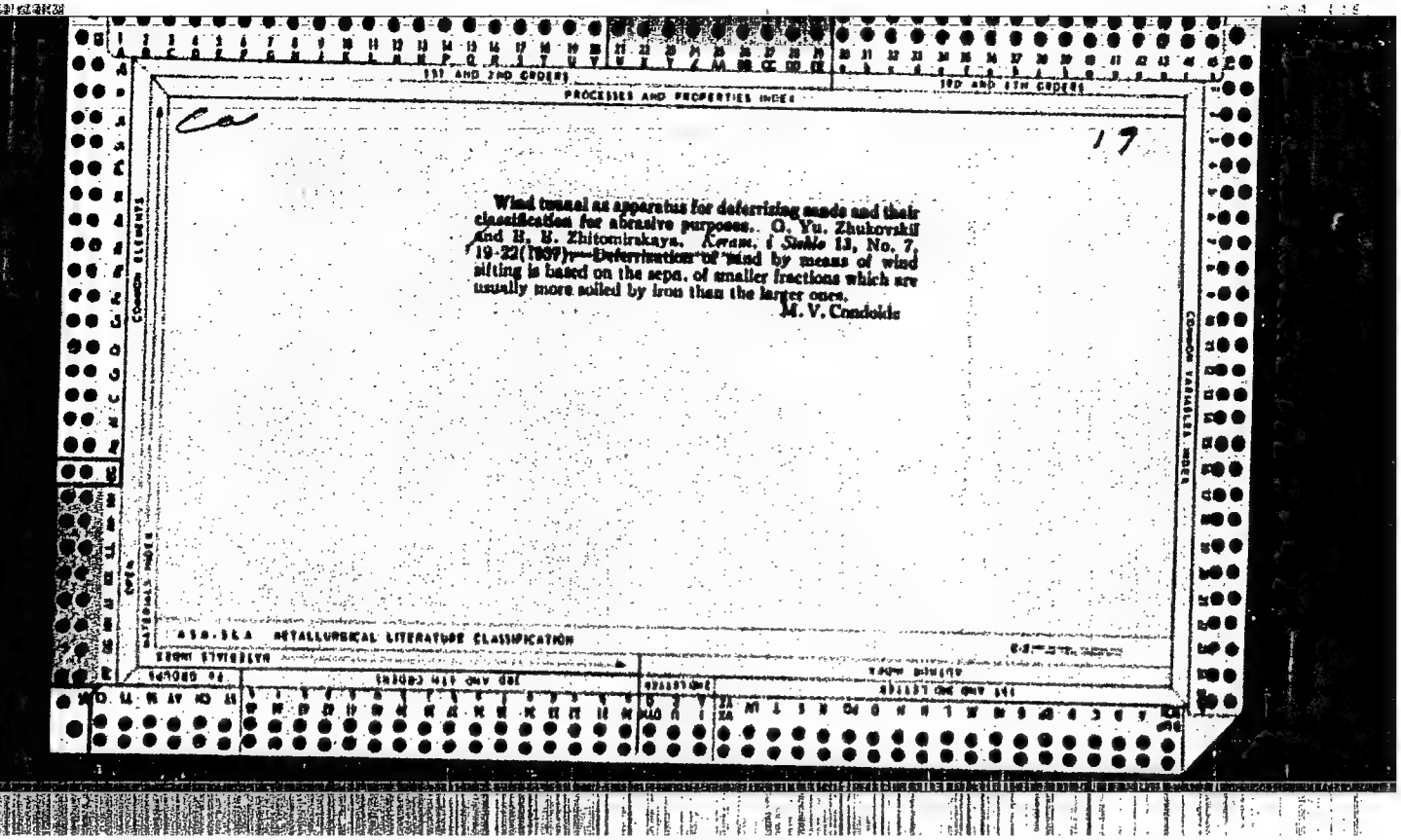
B5-10 Bldg. & Rd. Mater.

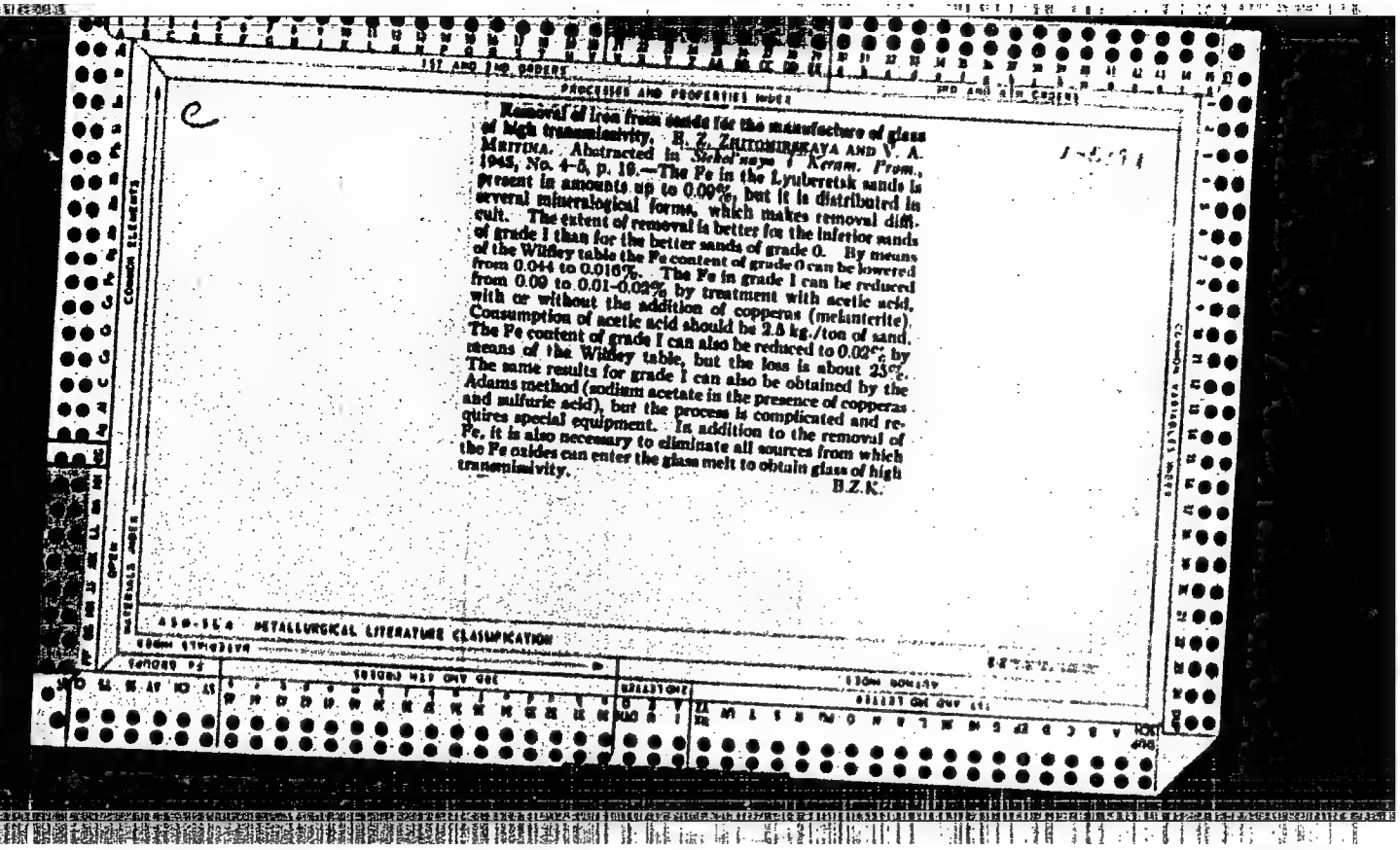
Binding properties of crystal hydrates of the sulphate type. V. F. Zhuravlev and V. I. Zhitomirskaya (*J. appl. Chem., U.S.S.R.*, 1950, 23, 112—117).—Endothermic effects during the heating of $MgSO_4.7H_2O$ were observed at 92°, 128°, 164°, 200°, and 242°, and it may be assumed that at 242° the last mol. of water is given up by $MgSO_4$. Partly-dehydrated $MgSO_4.7H_2O$ binds very quickly. Cubes (3×3×3 cm.) made from paste show after 1, 3, 7, and 28 days the tensile strengths: 18-6, 17-7, 26-7, —, and compressive strengths 240, 240, 340, and 410 kg. per sq. cm. High strength, hardness, quick binding, and colour of products suggest that dehydrated $MgSO_4.7H_2O$ may be applied for industrial use. J. B. J. Zaba.



Conditions producing the separation of the glass batch into component parts. G. Yu. Zhukovskii and E. Z. Zbitomirskaya. *Nauch.-Issledovatel. Inst. Stekla* No. 1, *Steklokhimiia* 22-41(1934).—Factors influencing the sepn. of the glass batch into component parts of glass melted in Fourcault machines, such as granulometric compn. of the batch, its moisture and vertical fall of the batch, were studied. It was found that: (1) the ratio between the grain sizes of sep. components is the chief factor affecting the sepn.; (2) the approximation of these values sharply decreases the danger of sepn.; (3) glass batches with coarse grains sep. more easily than those with finer grains; (4) moisture has little effect on the sepn. into component parts; (5) a perpendicular drop of the glass batch promotes the sepn. into component parts.

M. V. Kondoidy

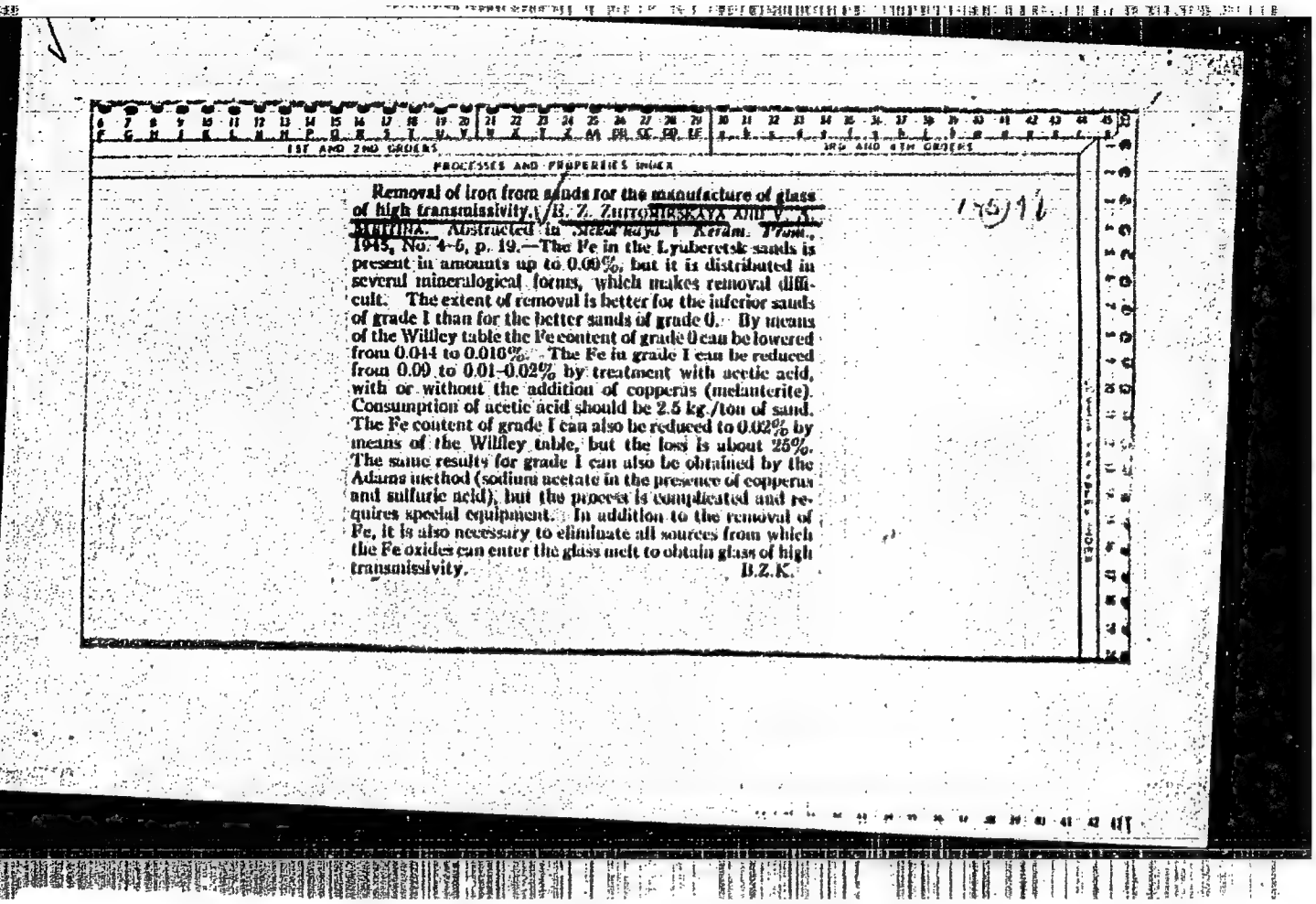




PROCESSES AND PROPERTIES INDEX

Removal of iron from sands for the manufacture of glass of high transmissivity. B. Z. ZHITOMIRSKAYA AND V. A. MITTINA. Abstracted in *Sklyanyi i Keram. Prom.*, 1945, No. 4–5, p. 16.—The Fe in the Lyuberetsk sands is present in amounts up to 0.09%, but it is distributed in several mineralogical forms, which makes removal difficult. The extent of removal is better for the inferior sands of grade I than for the better sands of grade 0. By means of the Wilfley table the Fe content of grade 0 can be lowered from 0.044 to 0.016%. The Fe in grade I can be reduced from 0.09 to 0.01–0.02% by treatment with acetic acid, with or without the addition of copperas (melanterite). Consumption of acetic acid should be 2.5 kg./ton of sand. The Fe content of grade I can also be reduced to 0.02% by means of the Wilfley table, but the loss is about 25%. The same results for grade I can also be obtained by the Adams method (sodium acetate in the presence of copperas and sulfuric acid), but the process is complicated and requires special equipment. In addition to the removal of Fe, it is also necessary to eliminate all sources from which the Fe oxides can enter the glass melt to obtain glass of high transmissivity.

B.Z.K.



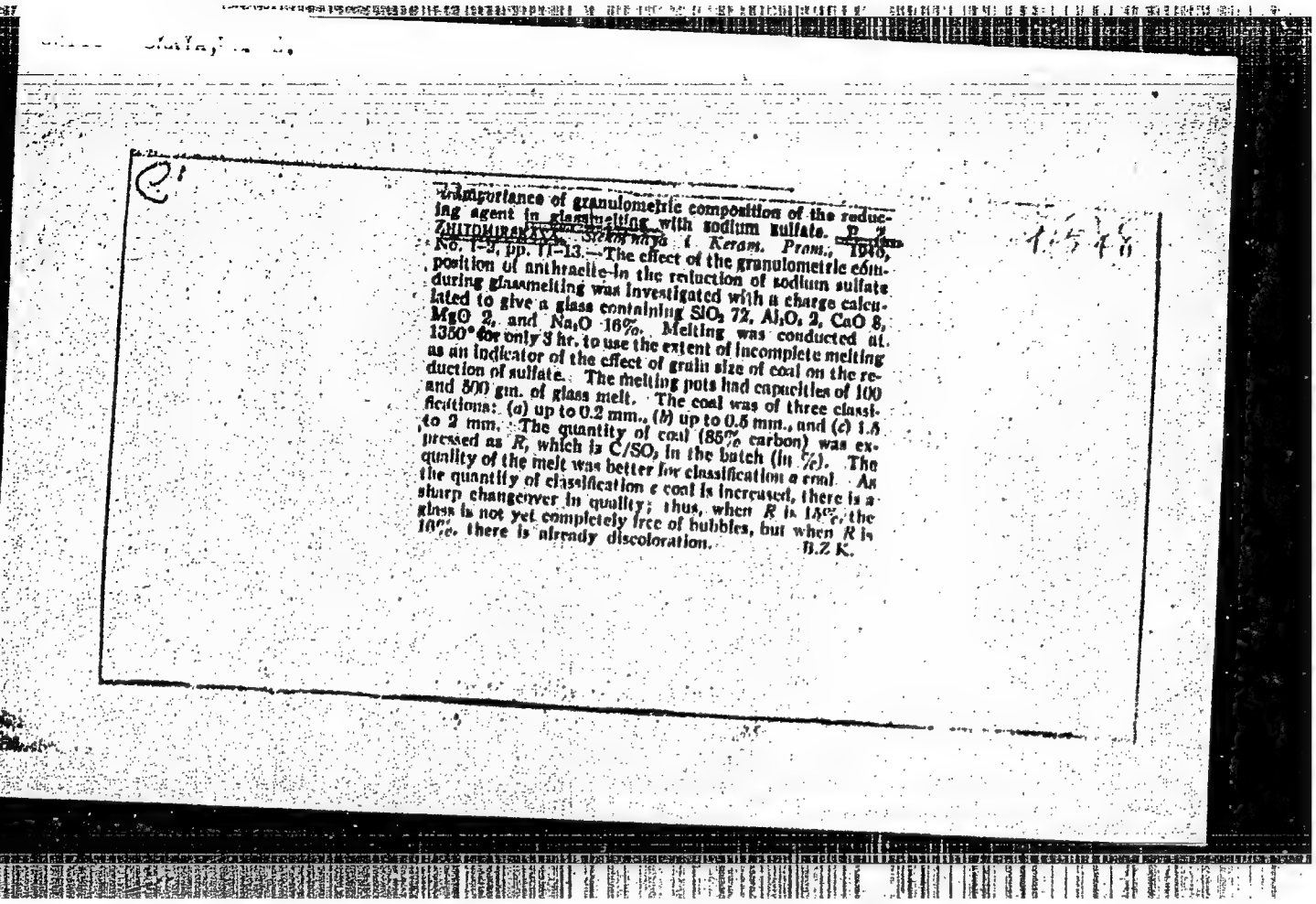
1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

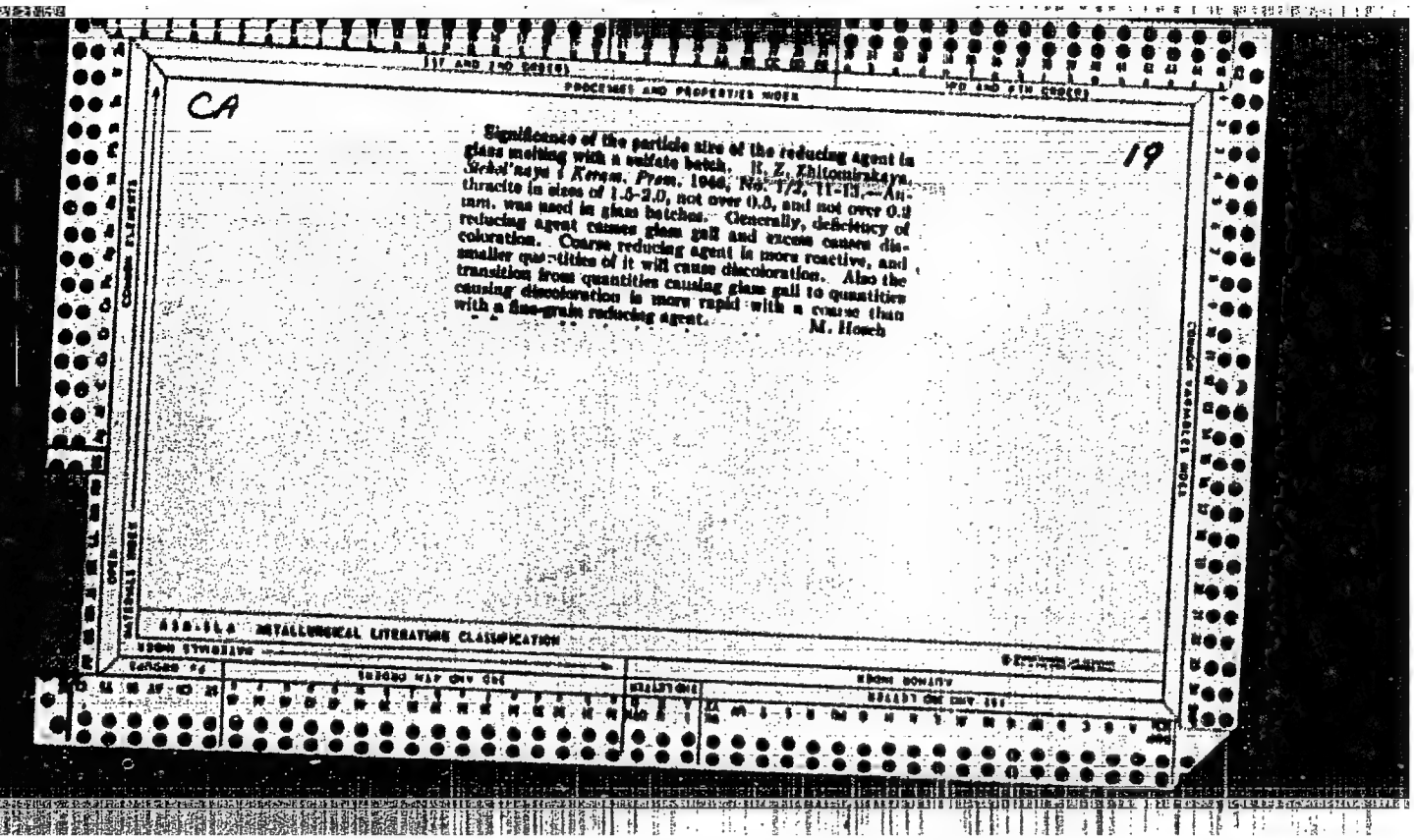
PROCESSES AND PROPERTIES INDEX

175/11

Removal of iron from sands for the manufacture of glass of high transmissivity. V. Z. ZHITOMIRSKAYA AND V. A. KHRENOVA. Abstracted in *Steklo i Keram. Prom.*, 1945, No. 4–5, p. 19.—The Fe in the Lyuberetsk sands is present in amounts up to 0.09%, but it is distributed in several mineralogical forms, which makes removal difficult. The extent of removal is better for the inferior sands of grade I than for the better sands of grade 0. By means of the Willey table the Fe content of grade 0 can be lowered from 0.044 to 0.016%. The Fe in grade I can be reduced from 0.09 to 0.01–0.02% by treatment with acetic acid, with or without the addition of copperas (melanterite). Consumption of acetic acid should be 2.5 kg./ton of sand. The Fe content of grade I can also be reduced to 0.02% by means of the Willey table, but the loss is about 25%. The same results for grade I can also be obtained by the Adams method (sodium acetate in the presence of copperas and sulfuric acid), but the process is complicated and requires special equipment. In addition to the removal of Fe, it is also necessary to eliminate all sources from which the Fe oxides can enter the glass melt to obtain glass of high transmissivity. B.Z.K.



Importance of granulometric composition of the reducing agent in glassmelting with sodium sulfate. P. Z. ZHITOMIRSKIY. *Steklo i Keram. Prom.*, 1948, No. 1–2, pp. 11–13.—The effect of the granulometric composition of anthracite in the reduction of sodium sulfate during glassmelting was investigated with a charge calculated to give a glass containing SiO_2 72, Al_2O_3 2, CaO 8, MgO 2, and Na_2O 16%. Melting was conducted at 1350° for only 3 hr. to use the extent of incomplete melting as an indicator of the effect of grain size of coal on the reduction of sulfate. The melting pots had capacities of 100 and 500 gm. of glass melt. The coal was of three classifications: (*a*) up to 0.2 mm., (*b*) up to 0.5 mm., and (*c*) 1.5 to 2 mm. The quantity of coal (85% carbon) was expressed as *R*, which is C/SO_3 in the batch (in %). The quality of the melt was better for classification *a* coal. As the quantity of classification *c* coal is increased, there is a sharp change over in quality; thus, when *R* is 15%, the glass is not yet completely free of bubbles, but when *R* is 16% there is already discoloration. B.Z K.



CA

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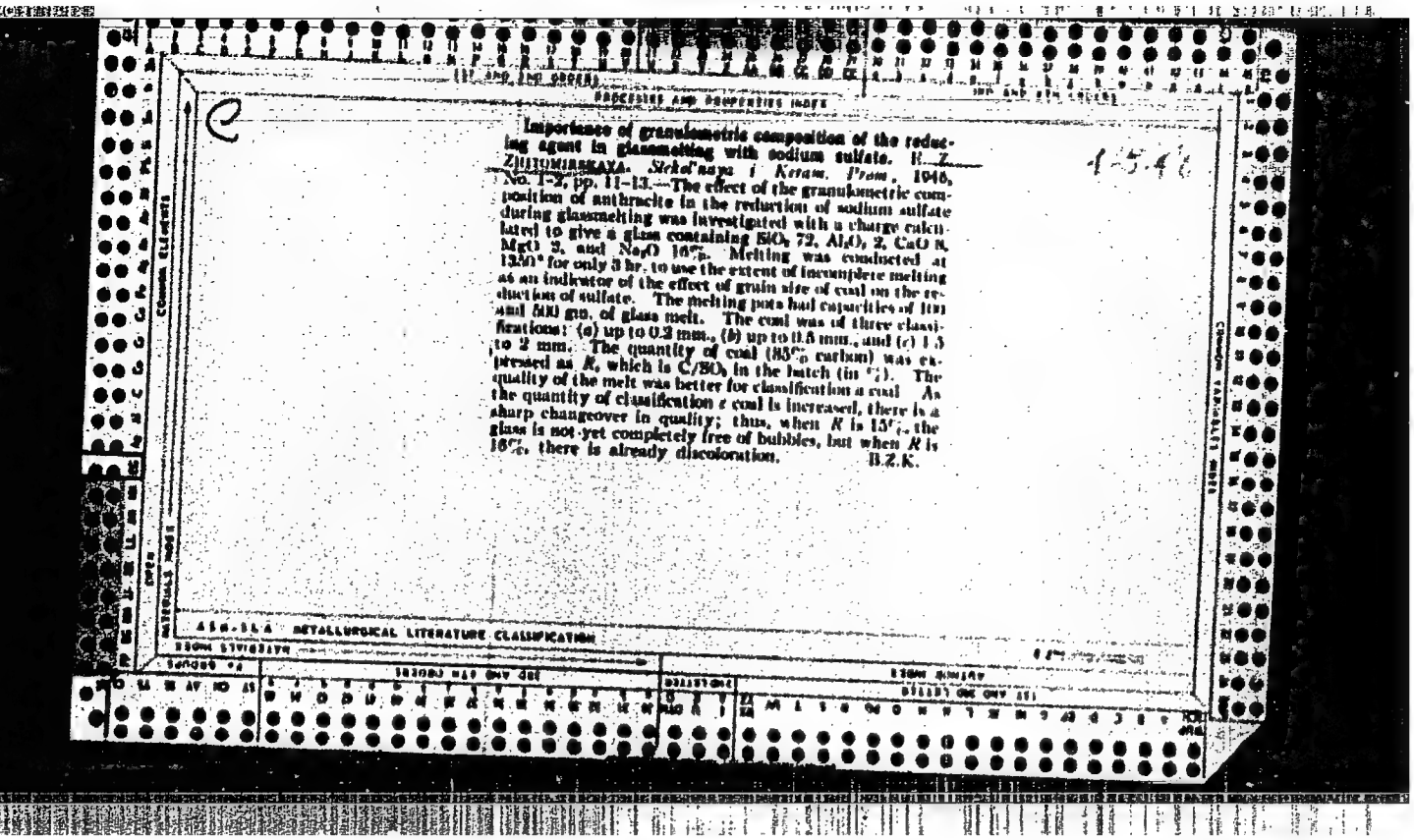
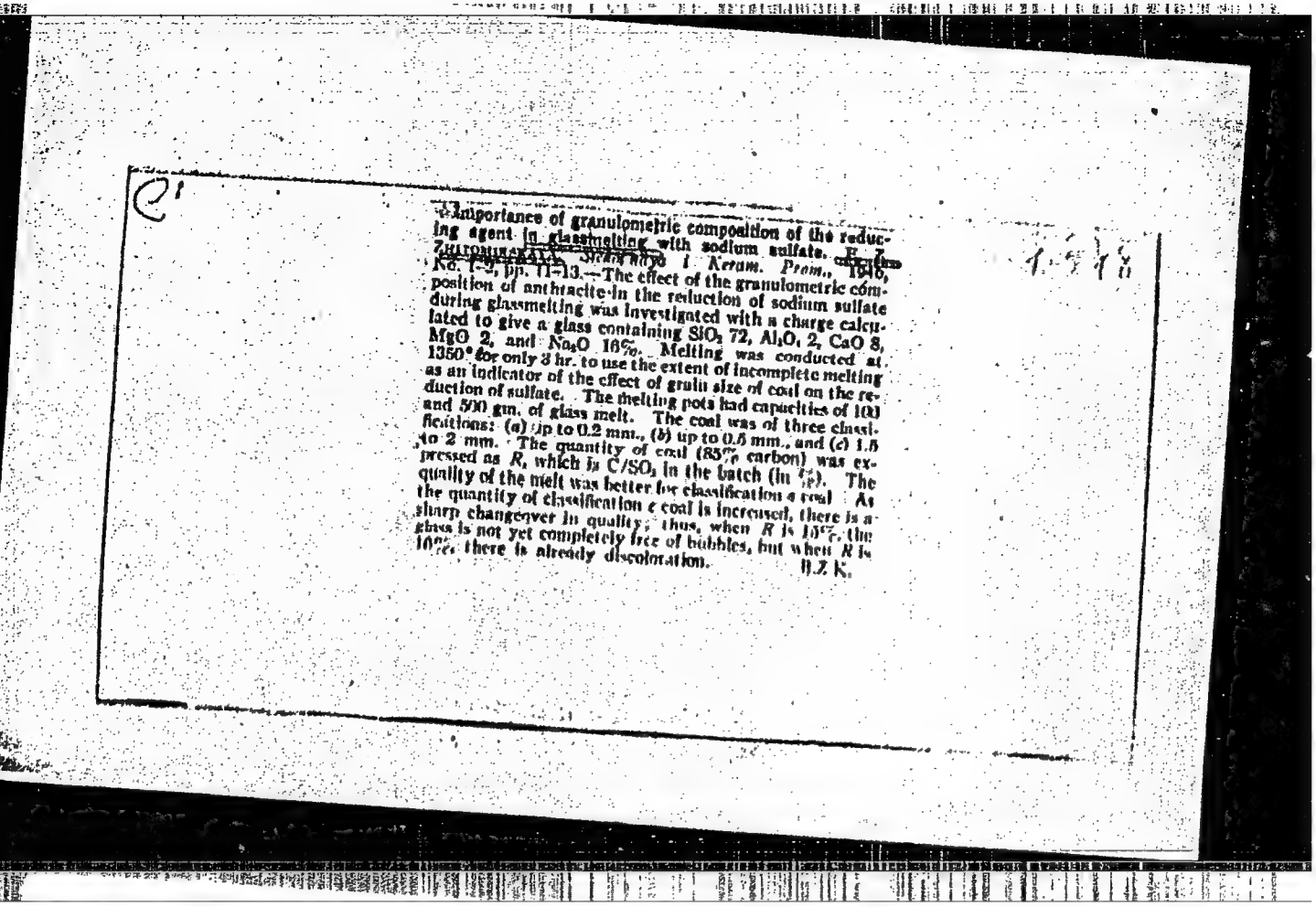
Significance of the particle size of the reducing agent in glass melting with a sulfate batch. B. Z. Zhitomirskaya. *Steklo i Keram. Prom.* 1948, No. 1/2, 11-13.—Anthracite in sizes of 1.5-2.0, not over 0.5, and not over 0.2 mm. was used in glass batches. Generally, deficiency of reducing agent causes glass gall and excess causes discoloration. Coarse reducing agent is more reactive, and smaller quantities of it will cause discoloration. Also the transition from quantities causing glass gall to quantities causing discoloration is more rapid with a coarse than with a fine-grain reducing agent. M. Hosch



Importance of granulometric composition of the reducing agent in glassmelting with sodium sulfate. R. Z. ZHITOMIRSKAYA. *Steklo i Keram. Prom.*, 1946, No. 1-2, pp. 11-13.—The effect of the granulometric composition of anthracite in the reduction of sodium sulfate during glassmelting was investigated with a charge calculated to give a glass containing SiO_2 72, Al_2O_3 2, CaO 8, MgO 3, and Na_2O 16%. Melting was conducted at 1350° for only 3 hr. to use the extent of incomplete melting as an indicator of the effect of grain size of coal on the reduction of sulfate. The melting pots had capacities of 100 and 500 gm. of glass melt. The coal was of three classifications: (*a*) up to 0.2 mm., (*b*) up to 0.5 mm., and (*c*) 1.5 to 2 mm. The quantity of coal (85% carbon) was expressed as *K*, which is C/SO_3 in the batch (in %). The quality of the melt was better for classification *a* coal. As the quantity of classification *c* coal is increased, there is a sharp changeover in quality; thus, when *K* is 15%, the glass is not yet completely free of bubbles, but when *K* is 16%, there is already discoloration. B.Z.K.



Importance of granulometric composition of the reducing agent in glassmelting with sodium sulfate. F. Z. Zhuromskaya. *Steklo i Keram. Prom.*, 1946, No. 1-2, pp. 11-13.—The effect of the granulometric composition of anthracite in the reduction of sodium sulfate during glassmelting was investigated with a charge calculated to give a glass containing SiO_2 72, Al_2O_3 2, CaO 8, MgO 2, and Na_2O 16%. Melting was conducted at 1350° for only 3 hr. to use the extent of incomplete melting as an indicator of the effect of grain size of coal on the reduction of sulfate. The melting pots had capacities of 100 and 500 gm. of glass melt. The coal was of three classifications: (*a*) up to 0.2 mm., (*b*) up to 0.5 mm., and (*c*) 1.5 to 2 mm. The quantity of coal (85% carbon) was expressed as *R*, which is C/SO_3 in the batch (in %). The quality of the melt was better for classification *a* coal. As the quantity of classification *c* coal is increased, there is a sharp changeover in quality; thus, when *R* is 15%, the glass is not yet completely free of bubbles, but when *R* is 10%, there is already discoloration. B.Z.K.

C.

7 - (5) - 13

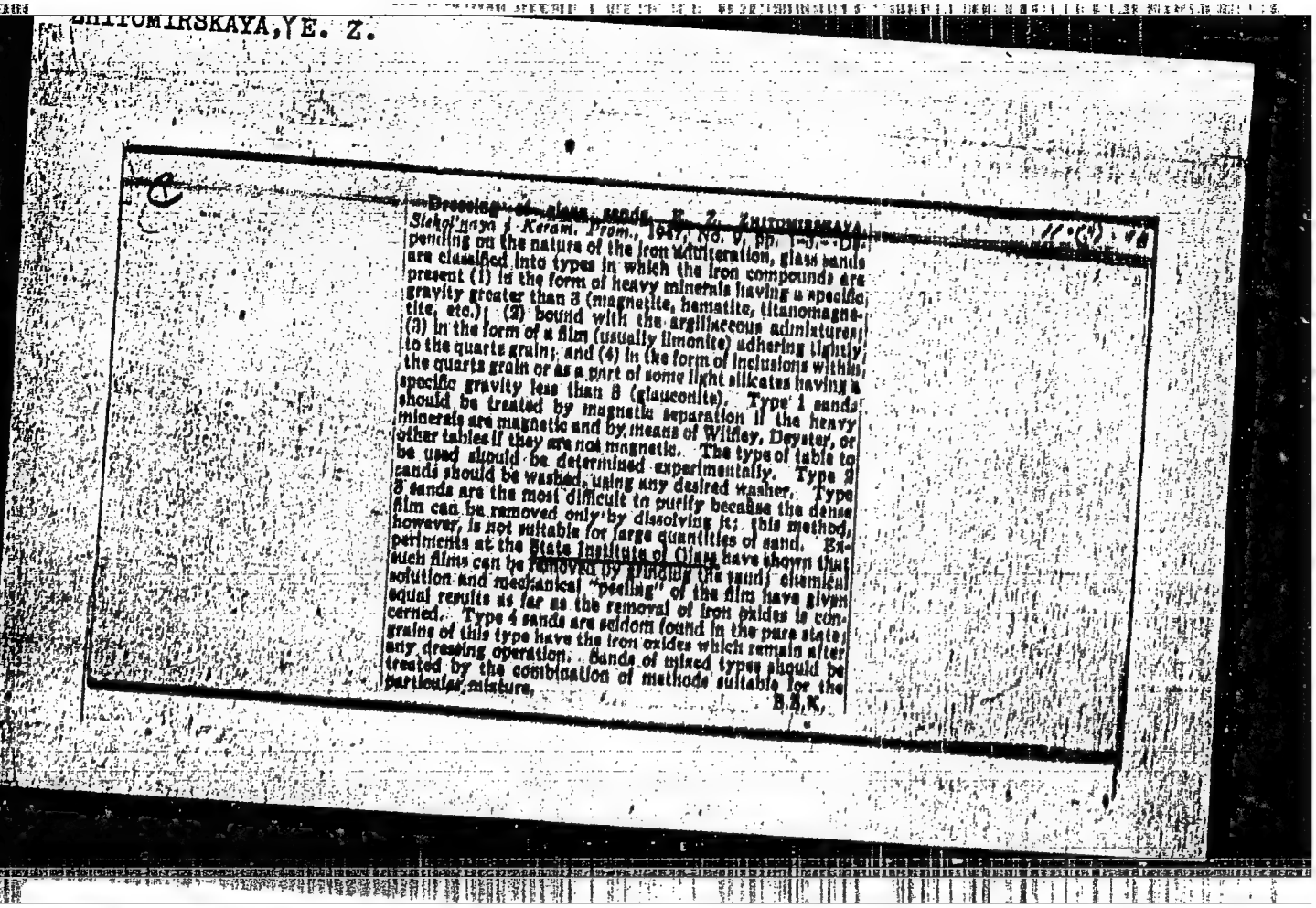
BENEFICIATION OF SANDS FROM THE VELIKODVOR DEPOSITS.

E. Z. Zhitomirskaya and E. N. Stepanova. Abstracted in Stekol'naya i Keram. Prom., 1947, No. 7, pp. 17-18. --

The quartz glass sands of the Velikodvor deposits analyze over 98 SiO_2, about 0.10 TiO_2, up to 0.80 Al_2O_3, and up to 0.28% Fe_2O_3. Average grain size is 0.25 to 0.3 mm. The most effective method of treatment is by means of a Wilfley table; this will remove 35 to 45% of the iron oxides (in one case, the removal was as high as 70%). The remaining content of iron oxides is 0.05 to 0.12%. The tailings are considerable but, after the dust has been removed, they can serve in the production of dark glass. The middlings were not treated further. Sands which are adulterated with iron in the form of limonite films on the grains must be treated by washing with friction in order to remove the iron. This method is equal to that involving the use of oxalic acid. B.Z.K.

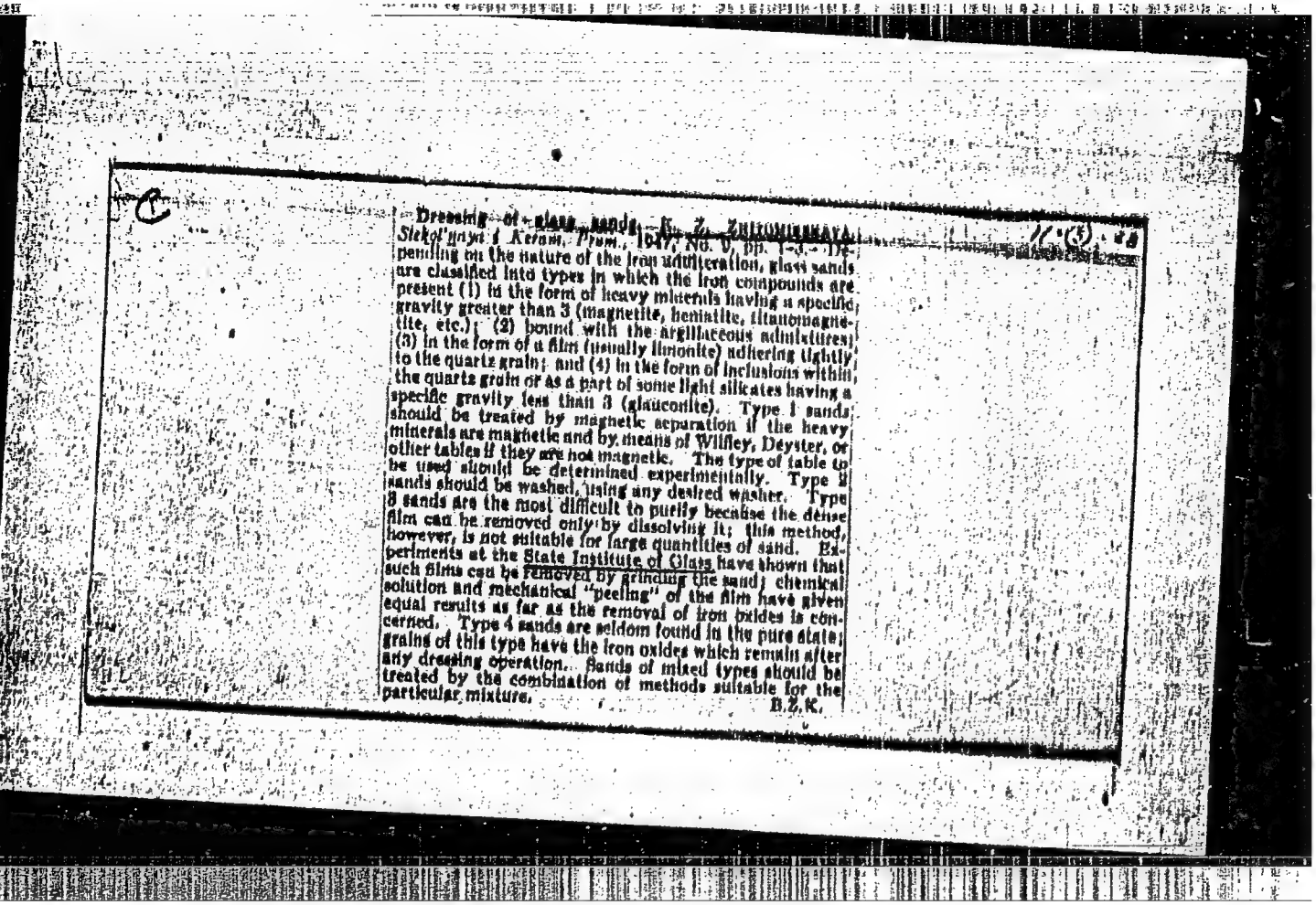
ZHITOMIRSKAYA, YE. Z.

Dressing of glass sands. E. Z. ZHITOMIRSKAYA. *Steklo i Keram.* 1947, No. 6, pp. 1-5. — Depending on the nature of the iron adulteration, glass sands are classified into types in which the iron compounds are present (1) in the form of heavy minerals having a specific gravity greater than 3 (magnetite, hematite, titanomagnetite, etc.); (2) bound with the argillaceous admixtures; (3) in the form of a film (usually limonite) adhering tightly to the quartz grain; and (4) in the form of inclusions within the quartz grain or as a part of some light silicates having a specific gravity less than 3 (glauconite). Type 1 sands should be treated by magnetic separation if the heavy minerals are magnetic and by means of Wilfley, Deyster, or other tables if they are not magnetic. The type of table to be used should be determined experimentially. Type 2 sands should be washed, using any desired washer. Type 3 sands are the most difficult to purify because the dense film can be removed only by dissolving it; this method, however, is not suitable for large quantities of sand. Experiments at the State Institute of Glass have shown that such films can be removed by grinding the sand; chemical solution and mechanical "peeling" of the film have given equal results as far as the removal of iron oxides is concerned. Type 4 sands are seldom found in the pure state; grains of this type have the iron oxides which remain after any dressing operation. Sands of mixed types should be treated by the combination of methods suitable for the particular mixture. B.Z.K.



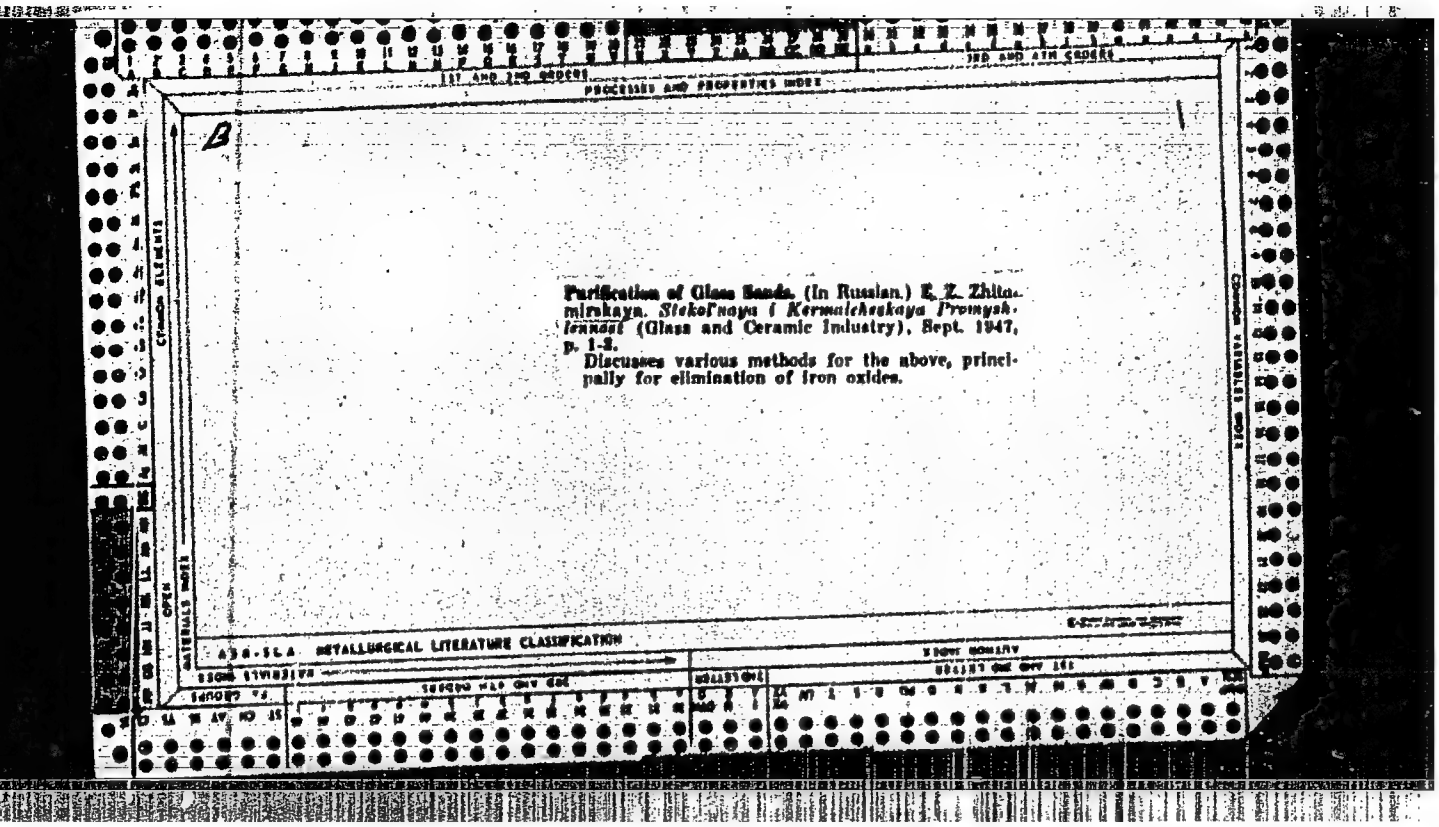
ZHITOMIRSKAYA, YE. Z.

Dressing of glass sands. Ye. Z. ZHITOMIRSKAYA. Steklo i Keram. Prom., 1947, No. 9, pp. 3-5. Depending on the nature of the iron admixtures, glass sands are classified into types in which the iron compounds are present (1) in the form of heavy minerals having a specific gravity greater than 3 (magnetite, hematite, titanomagnetite, etc.); (2) bound with the argillaceous admixtures; (3) in the form of a film (usually limonite) adhering tightly to the quartz grain; and (4) in the form of inclusions within the quartz grain or as a part of some light silicates having a specific gravity less than 3 (glauconite). Type 1 sands should be treated by magnetic separation if the heavy minerals are magnetic and by means of Wilfley, Deyster, or other tables if they are not magnetic. The type of table to be used should be determined experimentally. Type 2 sands should be washed, using any desired washer. Type 3 sands are the most difficult to purify because the dense film can be removed only by dissolving it; this method, however, is not suitable for large quantities of sand. Experiments at the State Institute of Glass have shown that such films can be removed by grinding the sand; chemical solution and mechanical "peeling" of the film have given equal results as far as the removal of iron oxides is concerned. Type 4 sands are seldom found in the pure state; grains of this type have the iron oxides which remain after any dressing operation. Sands of mixed types should be treated by the combination of methods suitable for the particular mixture. B.Z.K.



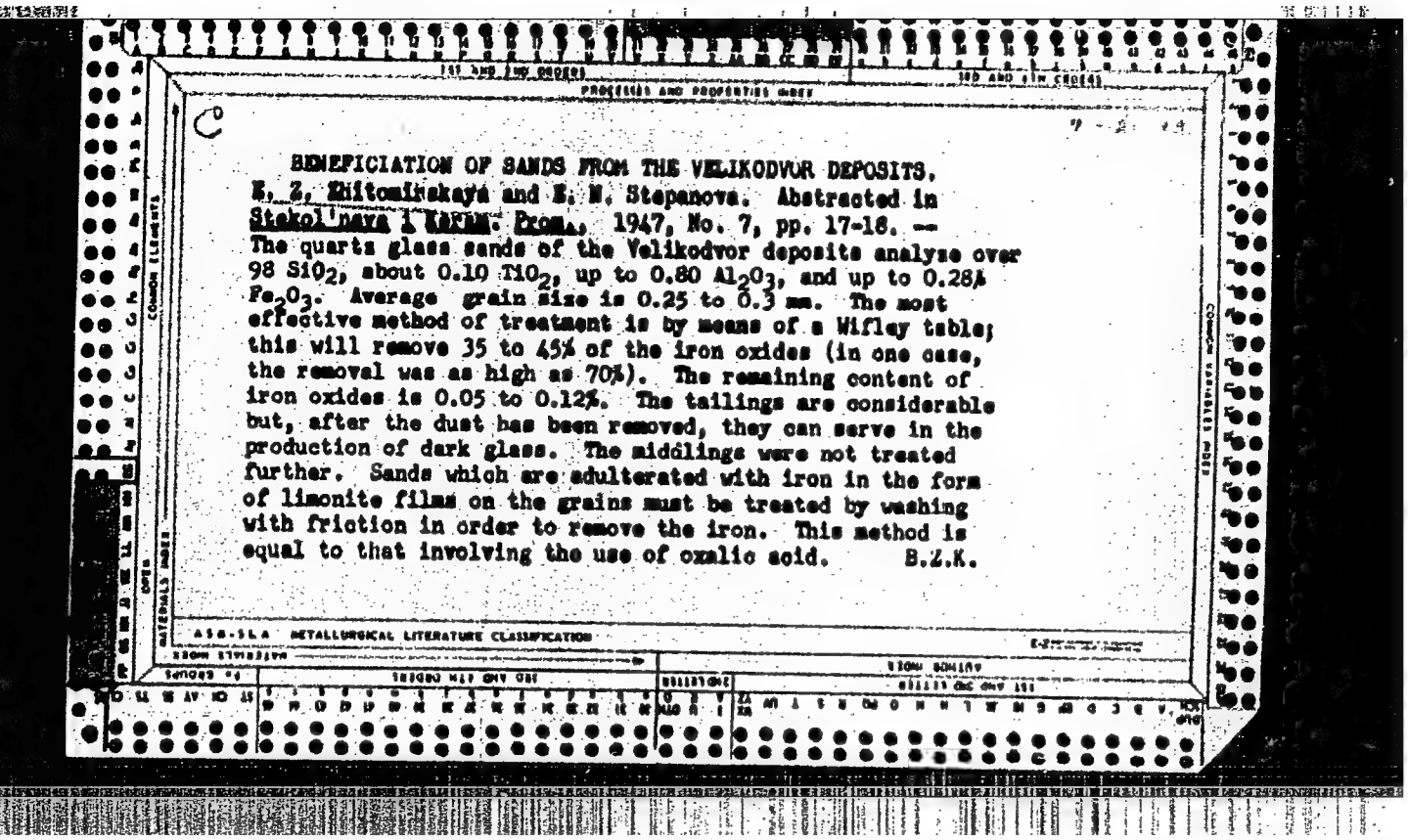
Dressing of glass sands. K. Z. Zhitomirskaya. *Steklo i Keram. Prom.*, 1947, No. 9, pp. 1-3. Depending on the nature of the iron admixteration, glass sands are classified into types in which the iron compounds are present (1) in the form of heavy minerals having a specific gravity greater than 3 (magnetite, hematite, titanomagnetite, etc.); (2) bound with the argillaceous admixtures; (3) in the form of a film (usually limonite) adhering tightly to the quartz grain; and (4) in the form of inclusions within the quartz grain or as a part of some light silicates having a specific gravity less than 3 (glauconite). Type 1 sands should be treated by magnetic separation if the heavy minerals are magnetic and by means of Wilfley, Deyster, or other tables if they are not magnetic. The type of table to be used should be determined experimentally. Type 2 sands should be washed, using any desired washer. Type 3 sands are the most difficult to purify because the dense film can be removed only by dissolving it; this method, however, is not suitable for large quantities of sand. Experiments at the State Institute of Glass have shown that such films can be removed by grinding the sand; chemical solution and mechanical "peeling" of the film have given equal results as far as the removal of iron oxides is concerned. Type 4 sands are seldom found in the pure state; grains of this type have the iron oxides which remain after any dressing operation. Sands of mixed types should be treated by the combination of methods suitable for the particular mixture.

B.Z.K.

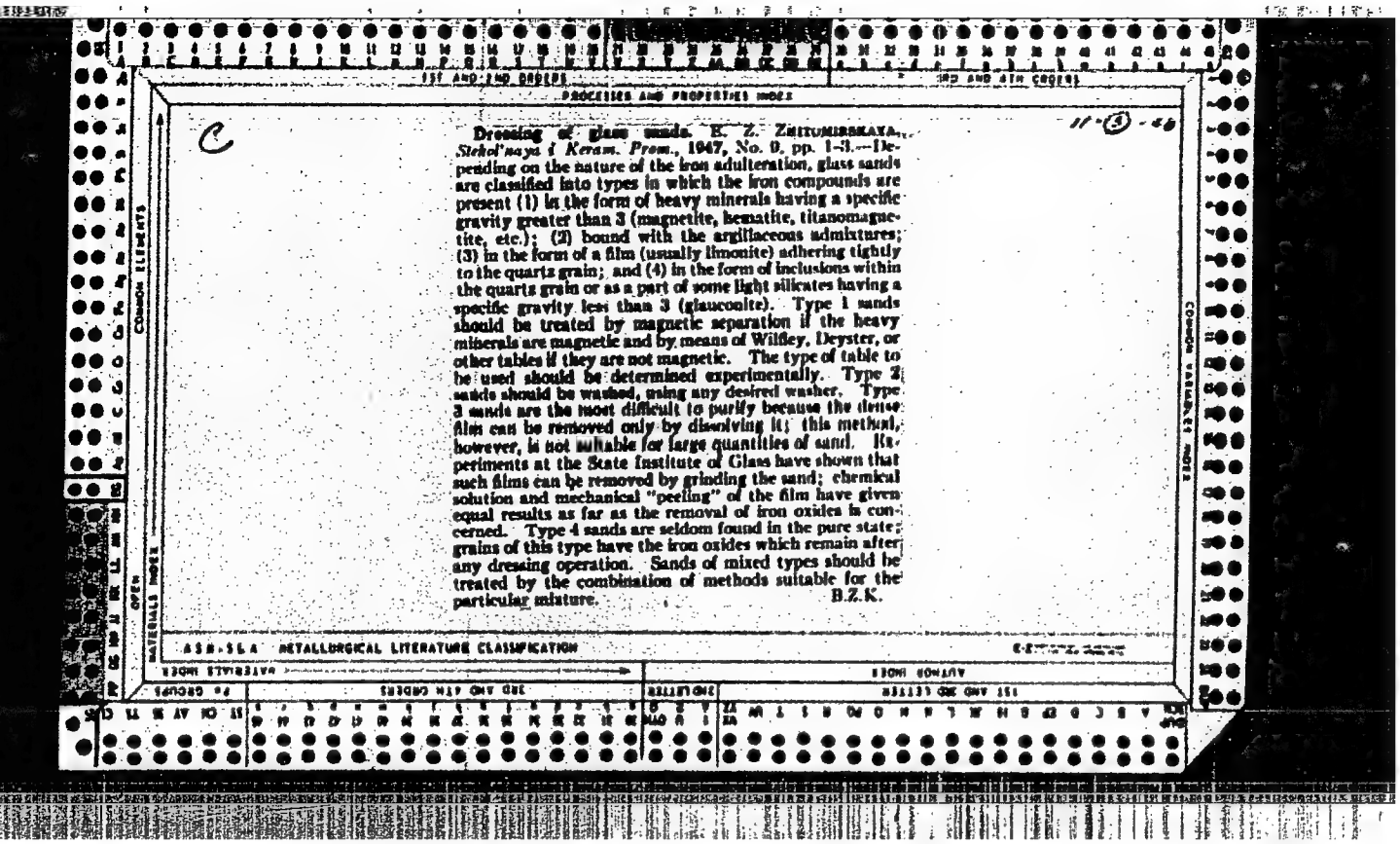


Purification of Glass Sands. (In Russian.) E. Z. Zhitomirskaya. *Steklo'naya i Keramicheskaya Promyshlennost'* (Glass and Ceramic Industry), Sept. 1947, p. 1-3.

Discusses various methods for the above, principally for elimination of iron oxides.



BENEFICIATION OF SANDS FROM THE VELIKODVOR DEPOSITS. E. Z. Khitomirskaya and E. N. Stepanova. Abstracted in Steklo i Keramika Prom., 1947, No. 7, pp. 17-18. -- The quartz glass sands of the Velikodvor deposits analyse over 98 SiO_2, about 0.10 TiO_2, up to 0.80 Al_2O_3, and up to 0.28% Fe_2O_3. Average grain size is 0.25 to 0.3 mm. The most effective method of treatment is by means of a Wifley table; this will remove 35 to 45% of the iron oxides (in one case, the removal was as high as 70%). The remaining content of iron oxides is 0.05 to 0.12%. The tailings are considerable but, after the dust has been removed, they can serve in the production of dark glass. The middlings were not treated further. Sands which are adulterated with iron in the form of limonite films on the grains must be treated by washing with friction in order to remove the iron. This method is equal to that involving the use of oxalic acid. B.Z.K.



PROCESSES AND PROPERTIES INDEX

C

Dressing of glass sands. E. Z. ZHITOMIRSKAYA. *Steklo'naya i Keram. Prom.*, 1947, No. 9, pp. 1–3.—Depending on the nature of the iron adulteration, glass sands are classified into types in which the iron compounds are present (1) in the form of heavy minerals having a specific gravity greater than 3 (magnetite, hematite, titanomagnetite, etc.); (2) bound with the argillaceous admixtures; (3) in the form of a film (usually limonite) adhering tightly to the quartz grain; and (4) in the form of inclusions within the quartz grain or as a part of some light silicates having a specific gravity less than 3 (glauconite). Type 1 sands should be treated by magnetic separation if the heavy minerals are magnetic and by means of Wilfley, Deyster, or other tables if they are not magnetic. The type of table to be used should be determined experimentally. Type 2 sands should be washed, using any desired washer. Type 3 sands are the most difficult to purify because the iron-film can be removed only by dissolving it; this method, however, is not suitable for large quantities of sand. Experiments at the State Institute of Glass have shown that such films can be removed by grinding the sand; chemical solution and mechanical "peeling" of the film have given equal results as far as the removal of iron oxides is concerned. Type 4 sands are seldom found in the pure state; grains of this type have the iron oxides which remain after any dressing operation. Sands of mixed types should be treated by the combination of methods suitable for the particular mixture. B.Z.K.

11-(3)-48

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

ZHITOMIRSKAYA, E.

15059

USSR/Glass Manufacture 4413.0600 Sep 1947

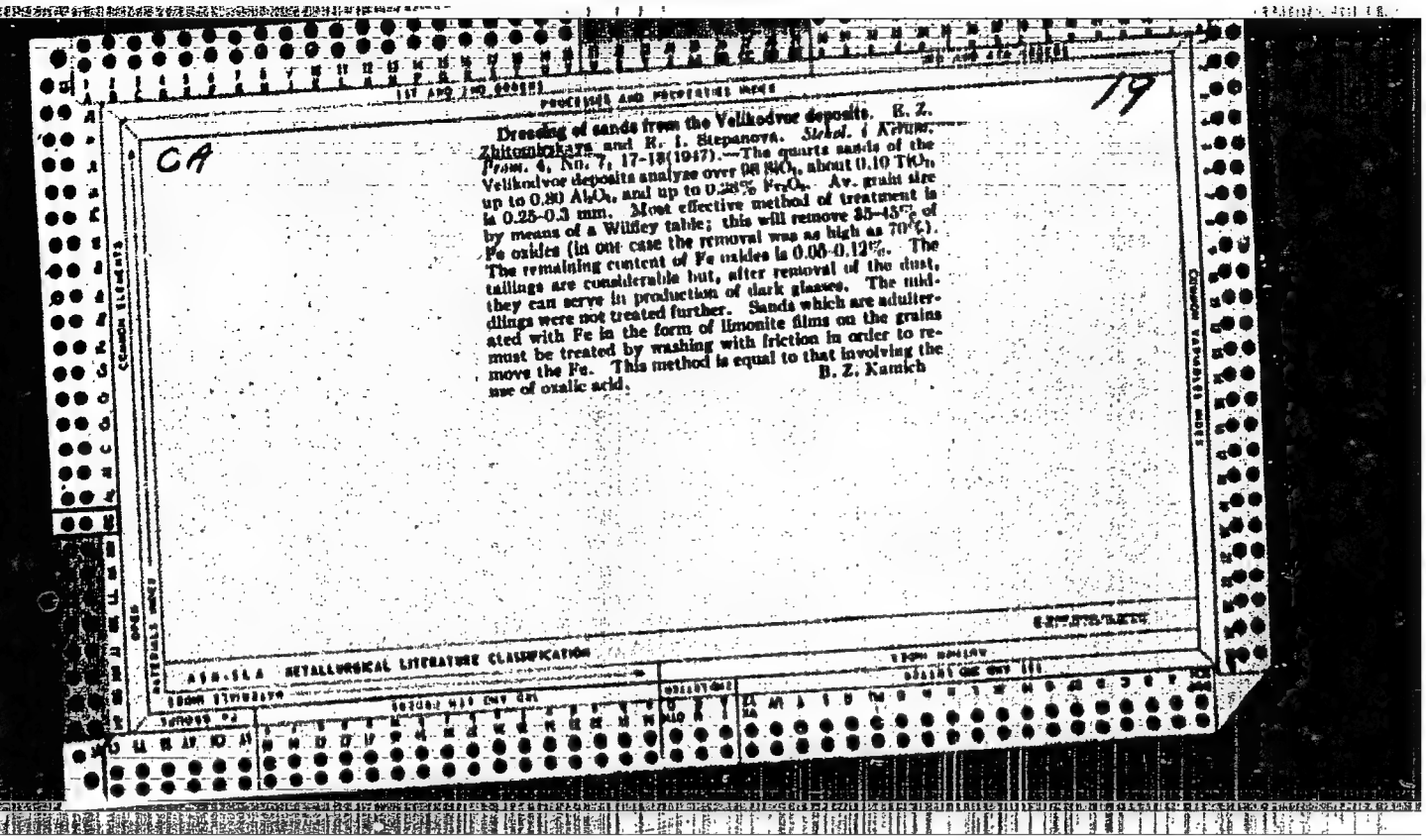
"Enriching Sand Used in Manufacture of Glass," E. Zhitomirskaya, 2½ pp

"Stek i Keram Prom" No 9

Divides sands into four types. Methods of extracting iron acids from them described briefly.

LC

15059

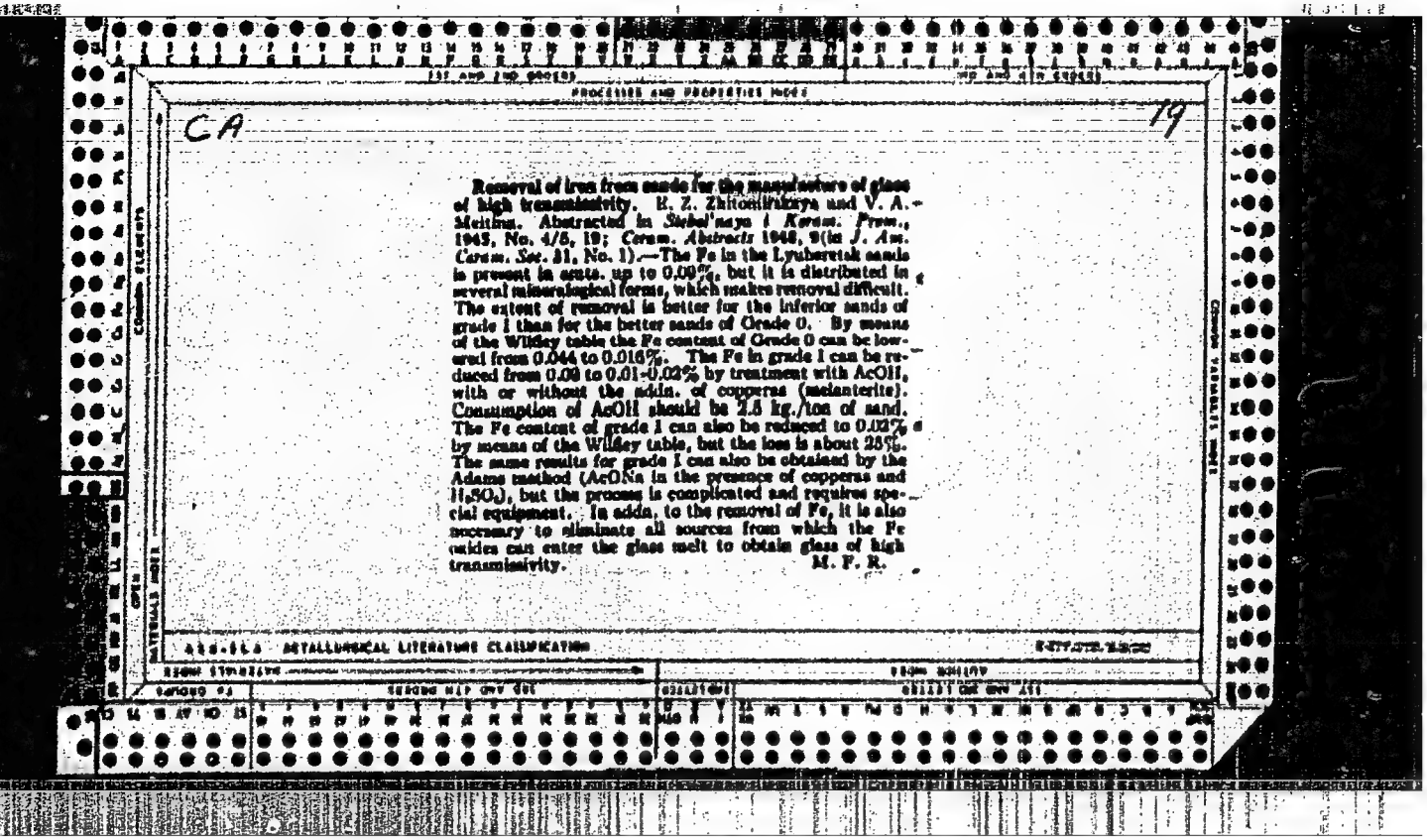


CA

19

Dressing of sands from the Velikodvor deposits. B. Z. Zhitomirskaya and R. I. Stepanova. *Stekol. i Keram.* 1947, No. 7, 17-18(1947).—The quartz sands of the Velikodvor deposits analyze over 98 SiO_2, about 0.10 TiO_2, up to 0.80 Al_2O_3, and up to 0.28% Fe_2O_3. Av. grain size is 0.25-0.3 mm. Most effective method of treatment is by means of a Wilfley table; this will remove 35-45% of Fe oxides (in one case the removal was as high as 70%). The remaining content of Fe oxides is 0.06-0.12%. The tailings are considerable but, after removal of the dust, they can serve in production of dark glasses. The middlings were not treated further. Sands which are adulterated with Fe in the form of limonite films on the grains must be treated by washing with friction in order to remove the Fe. This method is equal to that involving the use of oxalic acid.

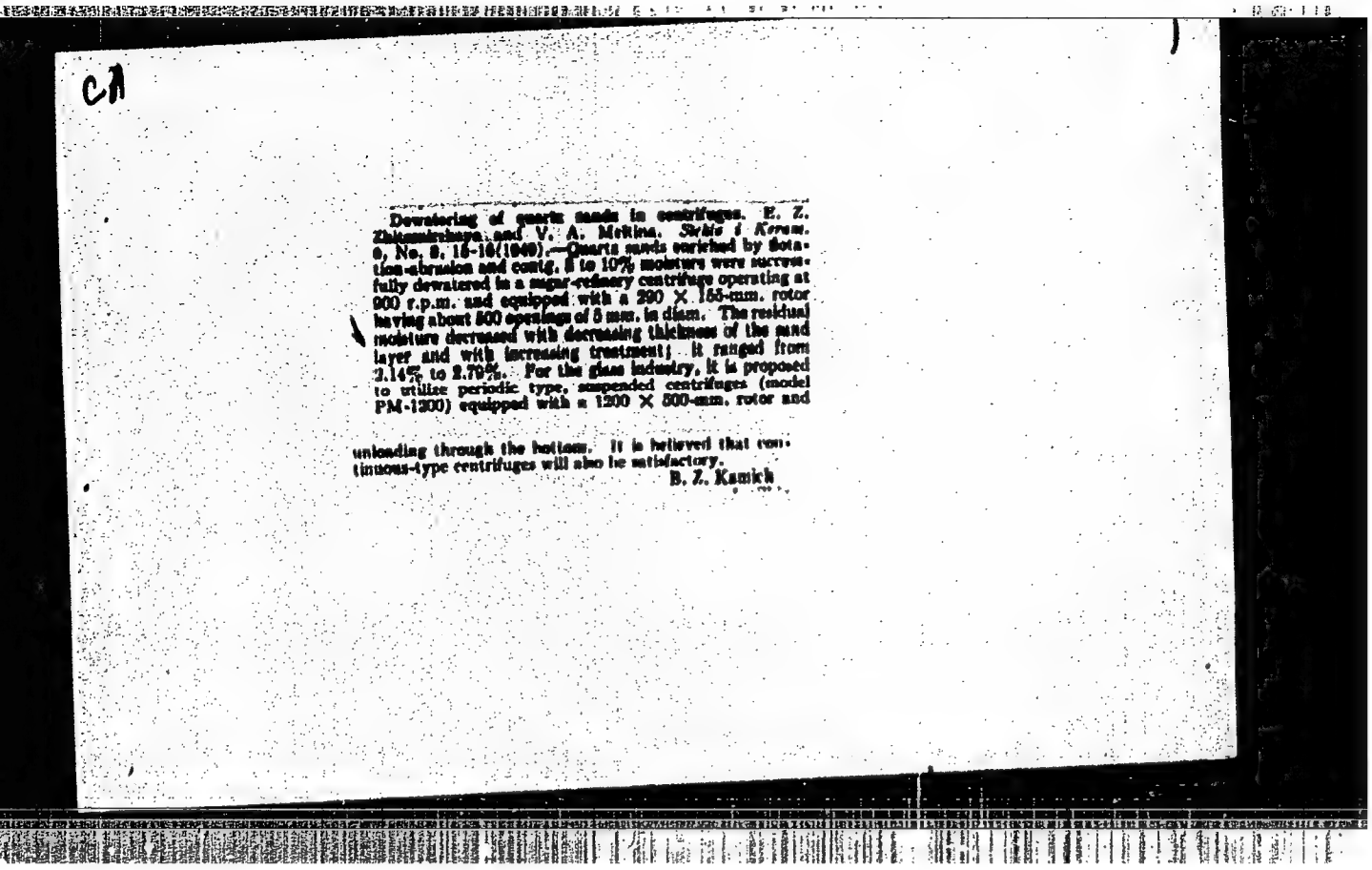
B. Z. Kamich



CA 19

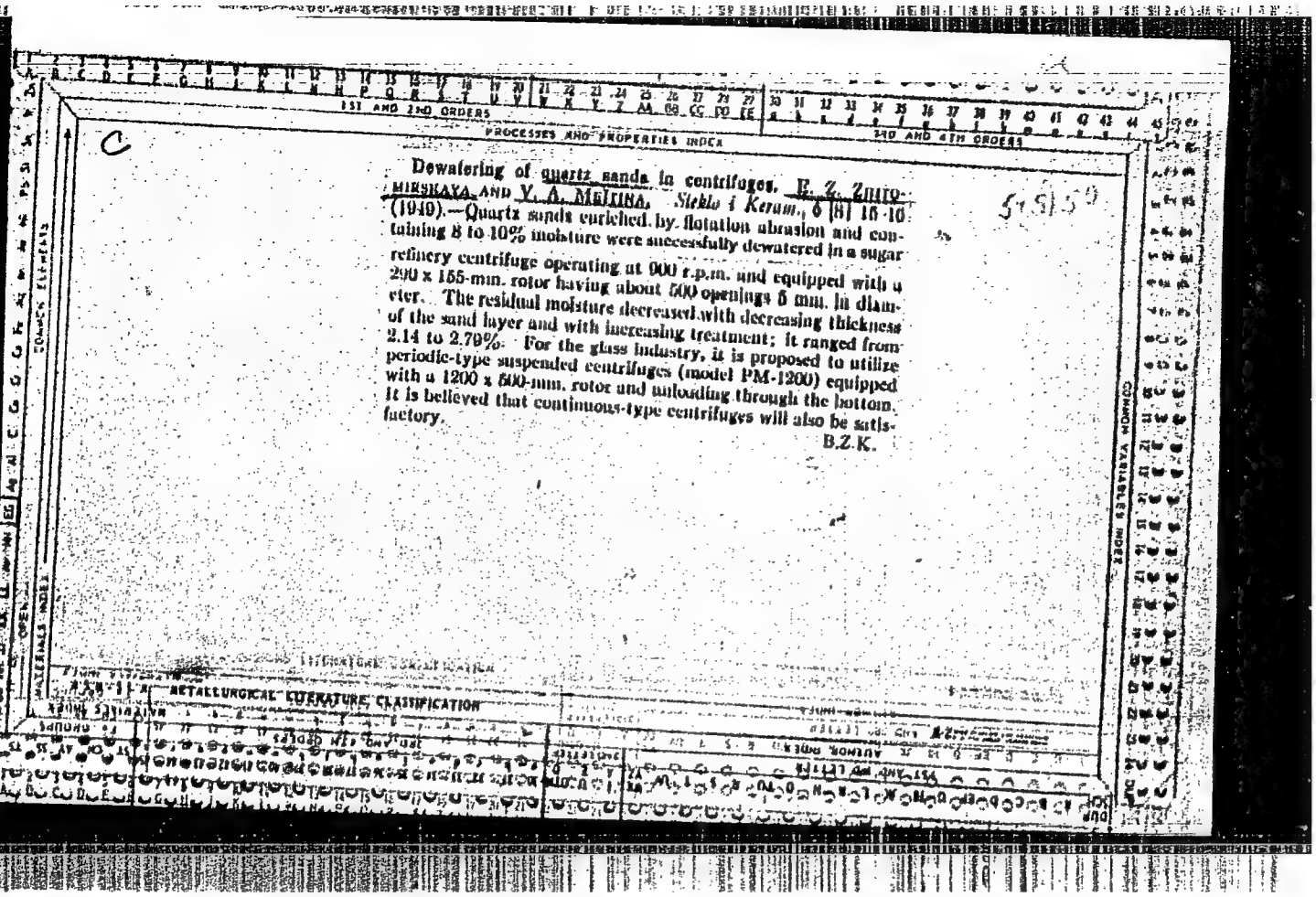
Removal of iron from sands for the manufacture of glass of high transmissivity. E. Z. Zhitomirskaya and V. A. Meitina. Abstracted in *Steklo'naya i Keram. Prom.*, 1943, No. 4/5, 19; *Ceram. Abstracts* 1943, 9(in *J. Am. Ceram. Soc.* 31, No. 1).—The Fe in the Lyubertsk sands is present in amts. up to 0.09%, but it is distributed in several mineralogical forms, which makes removal difficult. The extent of removal is better for the inferior sands of grade I than for the better sands of Grade 0. By means of the Wilfley table the Fe content of Grade 0 can be lowered from 0.044 to 0.016%. The Fe in grade I can be reduced from 0.09 to 0.01-0.02% by treatment with AcOH, with or without the addn. of copperas (melanterite). Consumption of AcOH should be 2.5 kg./ton of sand. The Fe content of grade I can also be reduced to 0.02% by means of the Wilfley table, but the loss is about 25%. The same results for grade I can also be obtained by the Adams method (AcONa in the presence of copperas and H_2SO_4), but the process is complicated and requires special equipment. In addn. to the removal of Fe, it is also necessary to eliminate all sources from which the Fe oxides can enter the glass melt to obtain glass of high transmissivity.

M. F. R.



Dewatering of quartz sands in centrifuges. E. Z. Zhitomirskaya and V. A. Mekina. *Stekło i Keram.* 6, No. 8, 15-16(1949).—Quartz sands enriched by flotation-abrasion and contg. 8 to 10% moisture were successfully dewatered in a sugar-refinery centrifuge operating at 900 r.p.m. and equipped with a 290 × 165-mm. rotor having about 800 openings of 5 mm. in diam. The residual moisture decreased with decreasing thickness of the sand layer and with increasing treatment; it ranged from 2.14% to 2.70%. For the glass industry, it is proposed to utilize periodic type, suspended centrifuges (model PM-1200) equipped with a 1200 × 800-mm. rotor and unloading through the bottom. It is believed that continuous-type centrifuges will also be satisfactory.

B. Z. Kanich



1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

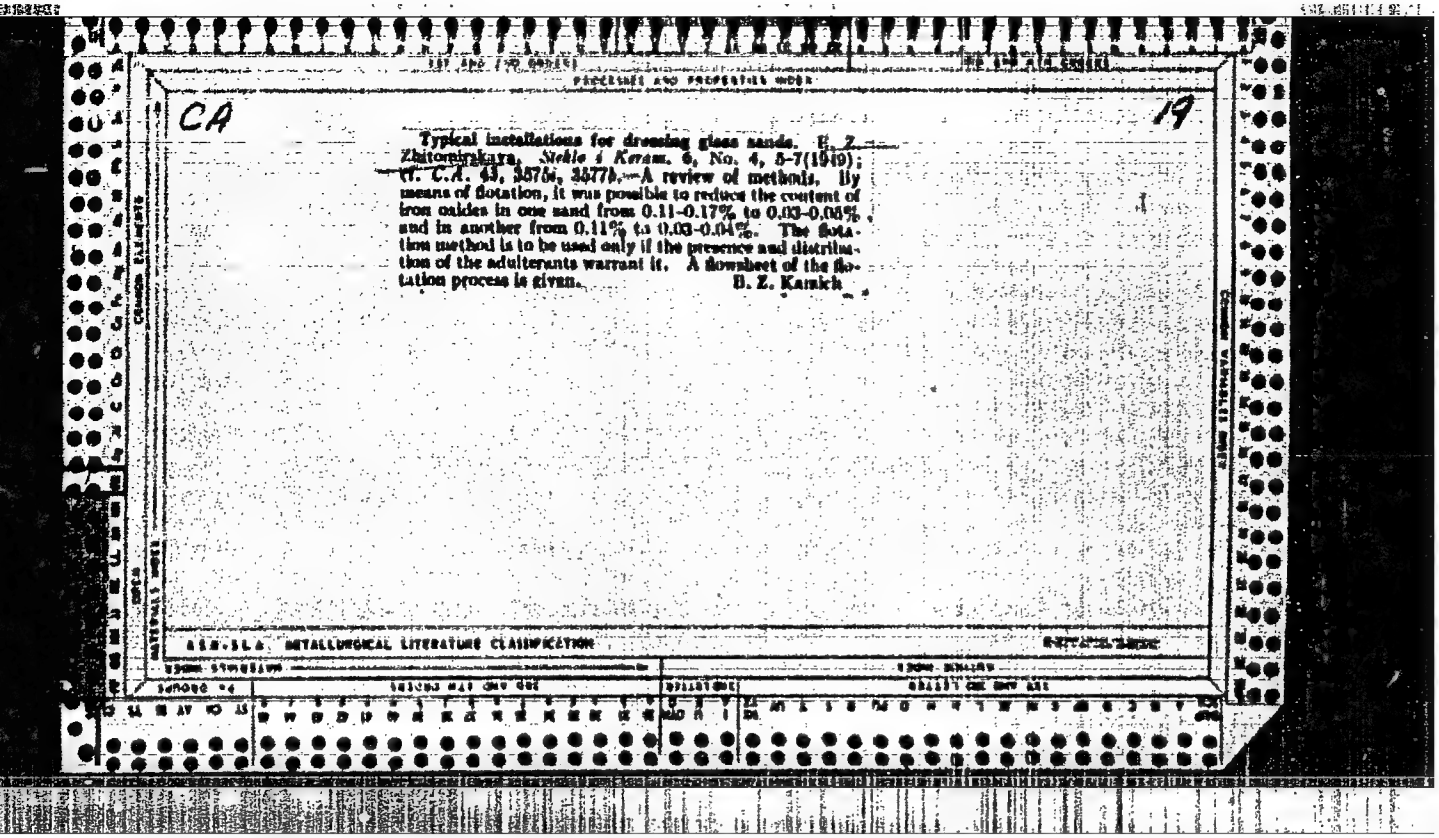
C

Dewatering of quartz sands in centrifuges. E. Z. ZHITOMIRSKAYA AND V. A. MELNIKOVA. *Steklo i Keram.*, 6 [8] 16-18 (1949).—Quartz sands enriched by flotation abrasion and containing 8 to 10% moisture were successfully dewatered in a sugar refinery centrifuge operating at 900 r.p.m. and equipped with a 200 x 155-mm. rotor having about 500 openings 5 mm. in diameter. The residual moisture decreased with decreasing thickness of the sand layer and with increasing treatment; it ranged from 2.14 to 2.79%. For the glass industry, it is proposed to utilize periodic-type suspended centrifuges (model PM-1200) equipped with a 1200 x 600-mm. rotor and unloading through the bottom. It is believed that continuous-type centrifuges will also be satisfactory.

B.Z.K.

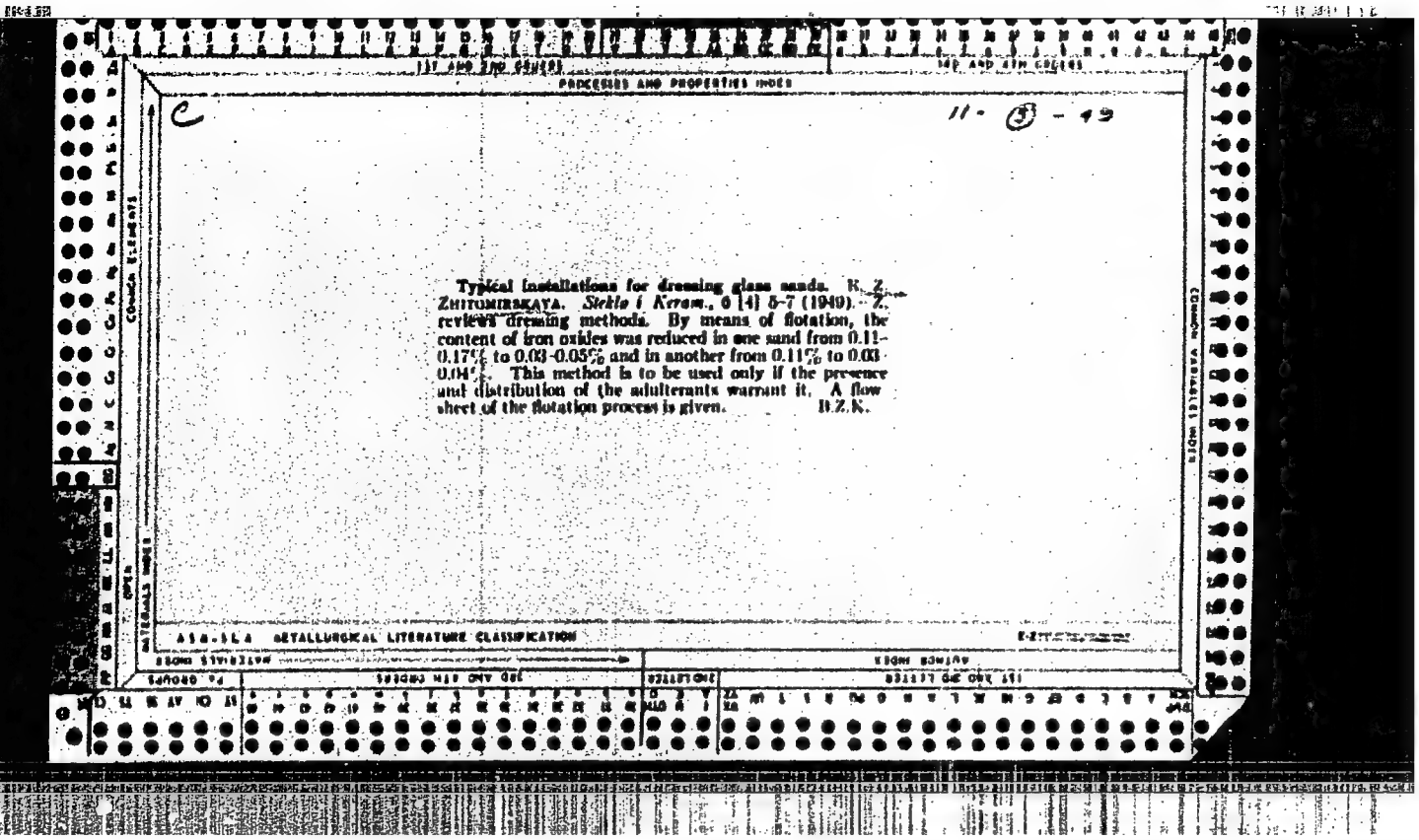
METALLURGICAL LITERATURE CLASSIFICATION

Typical installations for dressing glass sands. V. Z. ZHITOMIRSKAYA. *Steklo i Keram.*, 8 [11] 5–7 (1951).—V. reviews dressing methods. By means of flotation, the content of iron oxides was reduced in one sand from 0.11–0.17% to 0.03–0.05% and in another from 0.11% to 0.03–0.04%. This method is to be used only if the presence and distribution of the admixtures warrant it. A flow-sheet of the flotation process is given. B.Z.K.



CA 19

Typical installations for dressing glass sands. E. Z. Zhitomirskaya. *Steklo i Keram.* 6, No. 4, 5-7(1949); cf. *C.A.* 43, 3875*i*, 3877*b*.—A review of methods. By means of flotation, it was possible to reduce the content of iron oxides in one sand from 0.11-0.17% to 0.03-0.05% and in another from 0.11% to 0.03-0.04%. The flotation method is to be used only if the presence and distribution of the adulterants warrant it. A flowsheet of the flotation process is given. B. Z. Kanikh



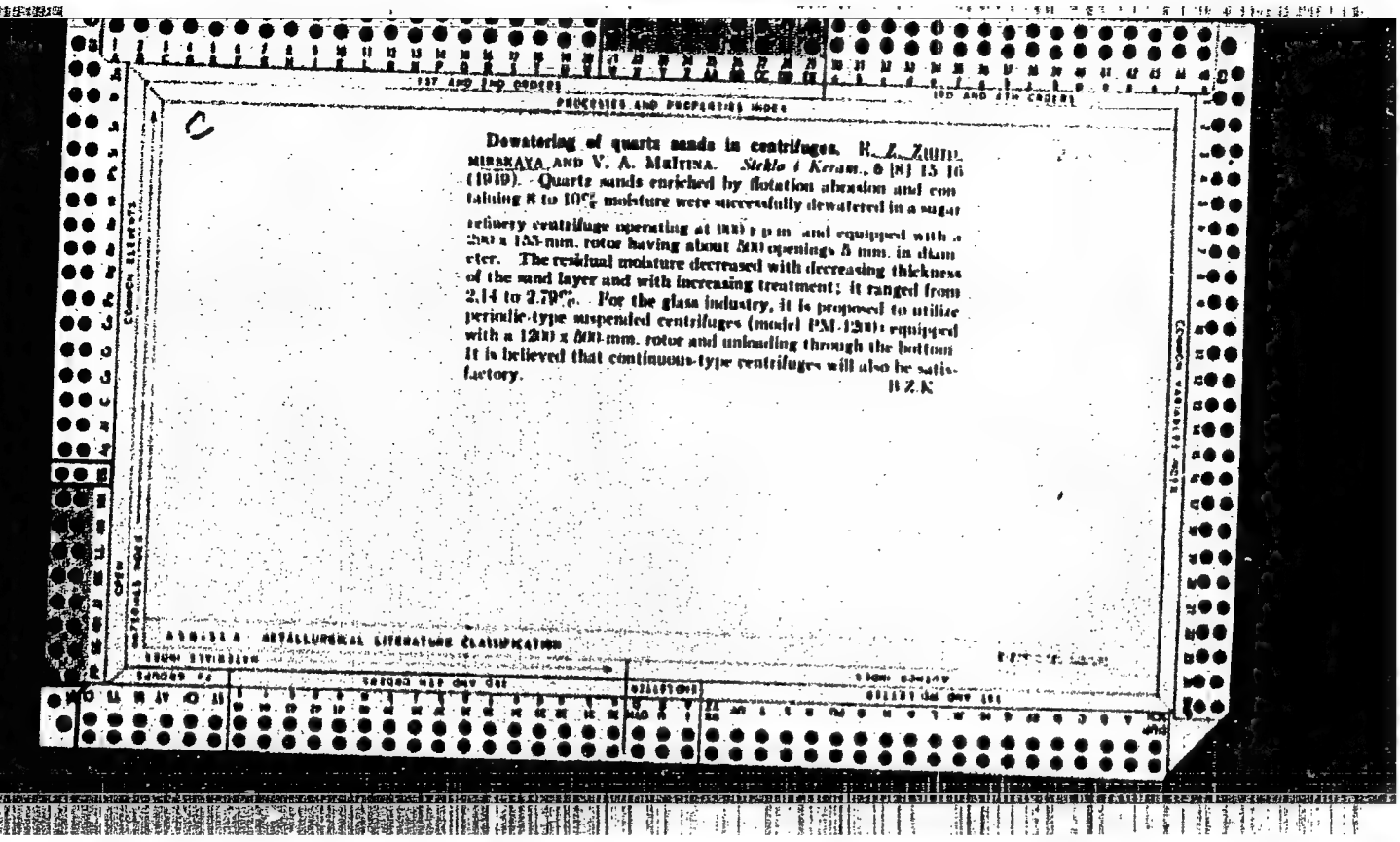
PROCESSES AND PROPERTIES INDEX

C

11-(3)-12

Typical installations for dressing glass sands. R. Z. ZHITOMIRSKAYA. *Steklo i Keram.*, 6 [4] 5-7 (1949). Z. reviews dressing methods. By means of flotation, the content of iron oxides was reduced in one sand from 0.11-0.17% to 0.03-0.05% and in another from 0.11% to 0.03-0.04%. This method is to be used only if the presence and distribution of the adulterants warrant it. A flow sheet of the flotation process is given. R.Z.K.

A56-5L4 METALLURGICAL LITERATURE CLASSIFICATION



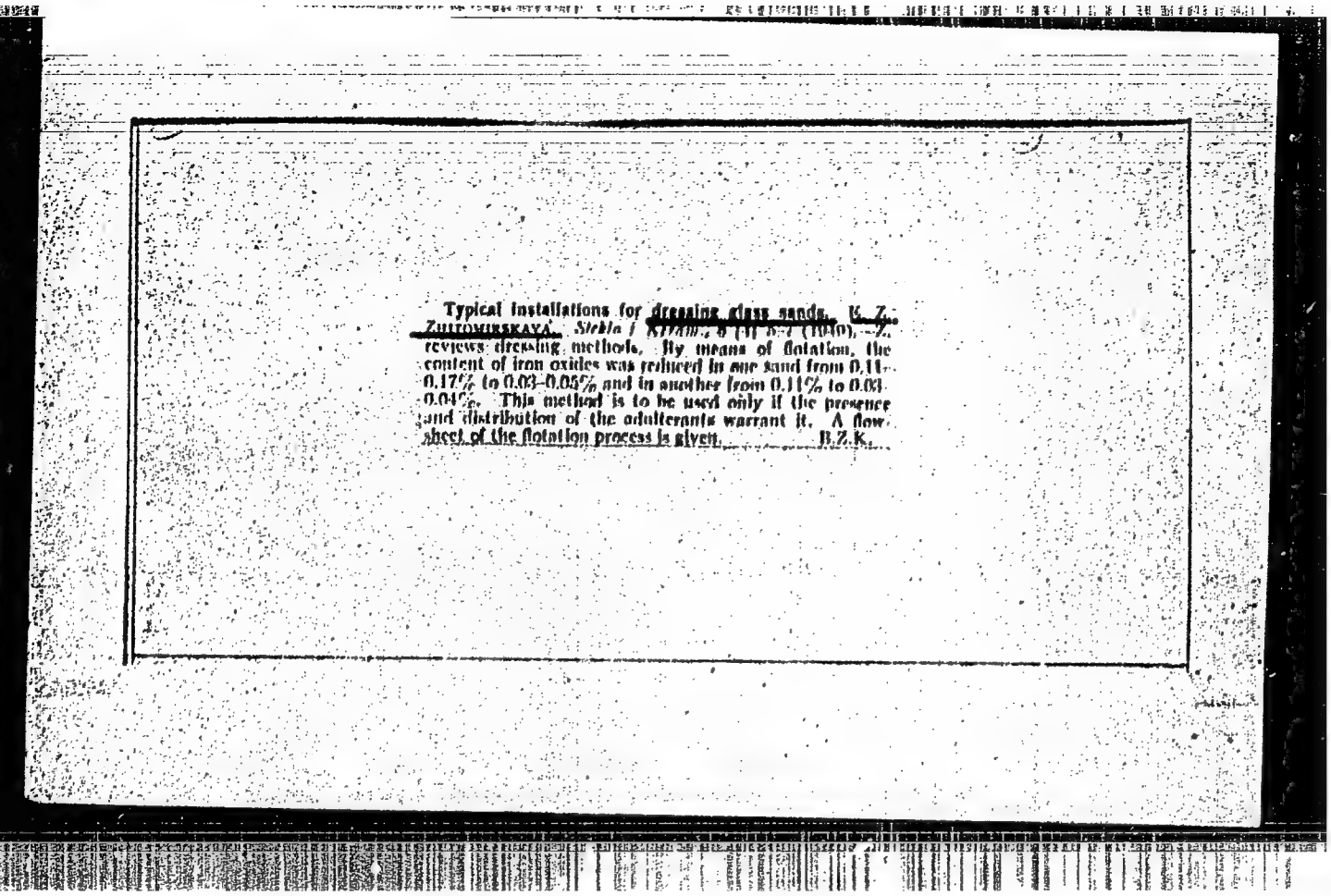
PROCESSES AND PREPARATIVE METHODS

C

Dewatering of quartz sands in centrifuges. R. L. Zolin, Mirskaya and V. A. Mulina. *Steklo i Keram.*, 6 [8] 15-16 (1949). - Quartz sands enriched by flotation abrasion and containing 8 to 10% moisture were successfully dewatered in a sugar refinery centrifuge operating at 1000 r.p.m. and equipped with a 250 x 155-mm. rotor having about 500 openings 5 mm. in diameter. The residual moisture decreased with decreasing thickness of the sand layer and with increasing treatment; it ranged from 2.14 to 2.79%. For the glass industry, it is proposed to utilize periodic-type suspended centrifuges (model PM-1200) equipped with a 1200 x 800-mm. rotor and unloading through the bottom. It is believed that continuous-type centrifuges will also be satisfactory.

B Z K

ARMCO METALLURGICAL LITERATURE CLASSIFICATION



Typical installations for dressing glass sands. K. Z. Zhitomirskaya. *Stekla i Keramika*, 8 (1) 3-4 (1951). — A review dressing methods. By means of flotation, the content of iron oxides was reduced in one sand from 0.11-0.17% to 0.03-0.05% and in another from 0.11% to 0.01-0.04%. This method is to be used only if the presence and distribution of the adulterants warrant it. A flow sheet of the flotation process is given. B.Z.K.

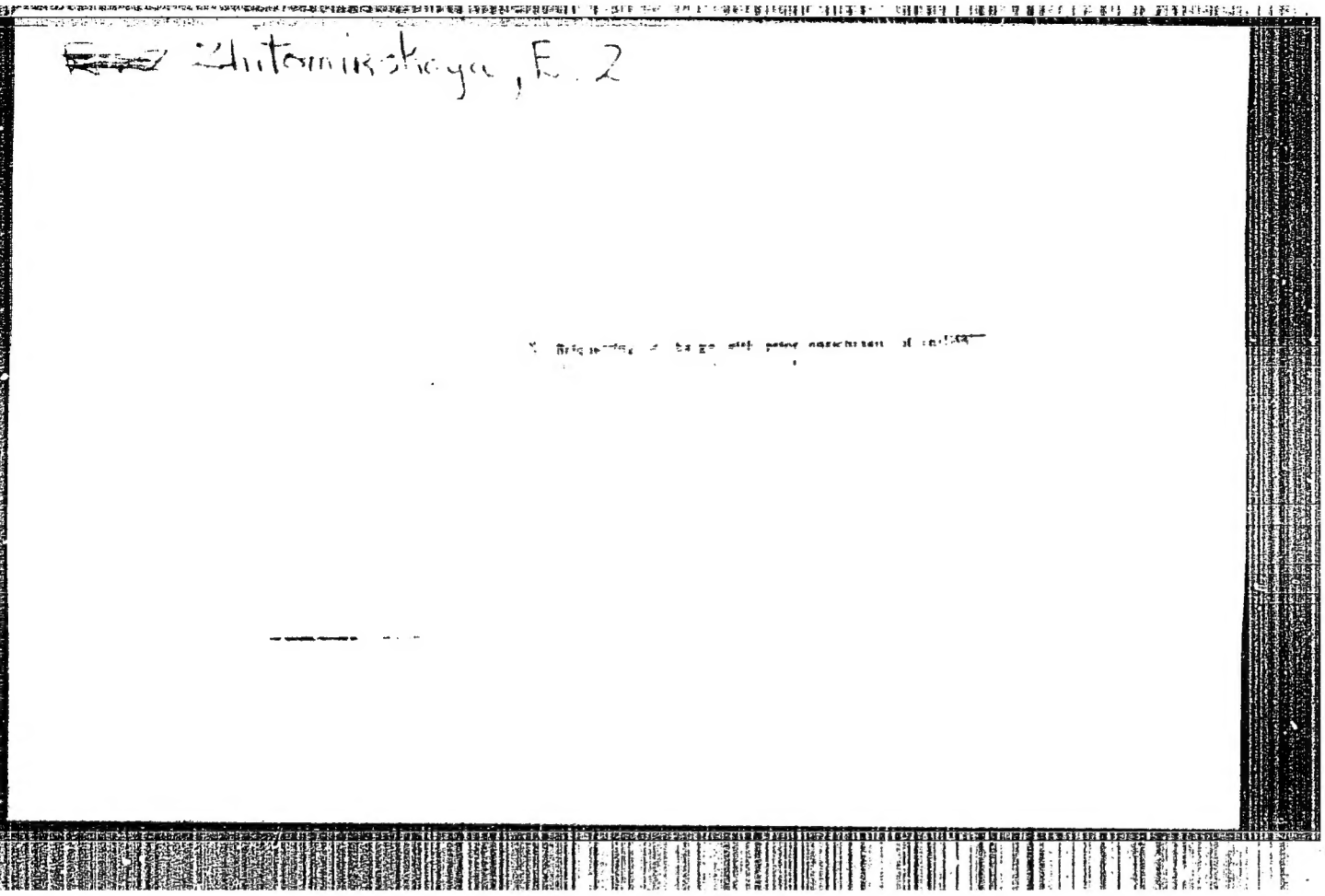
ZHITOMIRSKAYA, E. Z. i MYEYTINA, V. A.

29688

Obyezvozhivaniye Kvartsyevykh Preskov v tsyentrifugakh.

Styeklo i Kyeramika, 1949, No 8, s. 15-16

SO: LETOPIS' NO. 40



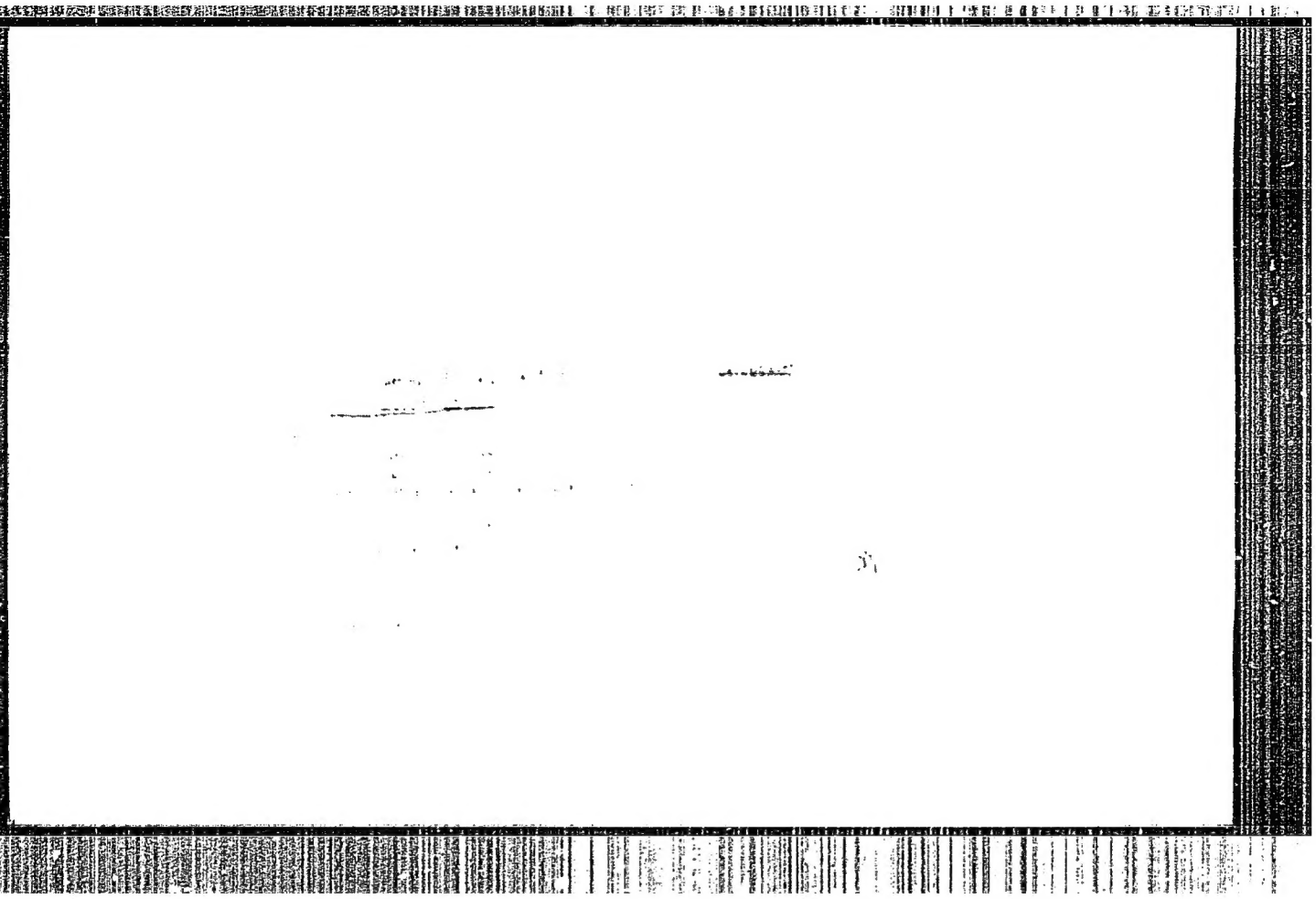
1. ZHITOMIRSKAYA, E.Z.

2. USSR (600)

4. Glass Manufacture

7. Making glass mixture into briquets with preliminary preparation of carbonate raw material, Stek. i ker. 10 no. 5, 1953.

9. Monthly List of Russian Accessions, Library of Congress, APRIL 1953, Unclassified.



APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R002064820015-3"

KITAYGORODSKIY, I., professor, doktor tekhnicheskikh nauk;
ZHITOMIRSKAYA, E., kandidat tekhnicheskikh nauk.

Foam glass in building. Stroitel' no.12:18 D '56. (MLRA 10:2)

(Glass, Cellular)